

These are the annex questions for the Deck Examinations. Each question shows the Book Number and the Question number in that book

These questions will be added to the correct book in a later edition.

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BOOK # 02 Question # 02140

. You are loading in a port subject to the summer load line mark and bound for a port subject to the tropical load line mark. You will enter the tropical zone after steaming four days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.006, and the average TPI is 66. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	77 inches (T)	7 inches above (S)	
Summer	84 inches (S)	*	
Winter	91 inches (W)	7 inches below (S)	
Allowance for fresh water all freeboards	8 inches		

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 78 inches
- B. 82 inches
- C. 86 inches
- D. 88 inches

k - A

BOOK # 02 Question #02134

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming two days. You will consume 28 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.020, and the average TPI is 55. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	69 inches (T)	7 inches above (S)	
Summer	76 inches (S)	*	
Winter	83 inches (W)	7 inches below (S)	
Allowance for fresh water all freeboards			6 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 62 inches
- B. 66 inches

- C. 70 inches
- D. 74 inches

k - D

BOOK # 02 Question # 02125

. You are loading in a port subject to the winter load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming six days. You will consume 32 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.005, and the average TPI is 65. The following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE				LOAD LINE
Tropical	72 inches	(T)	7 inches above	(S)
Summer	79 inches	(S)	*	
Winter	86 inches	(W)	7 inches below	(S)
Allowance for fresh water all freeboards				6 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 93 inches
- B. 90 inches
- C. 81 inches
- D. 70 inches

k - C

BOOK # 02 Question # 02118

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming four days. You will consume 41 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.000 and the average TPI is 55. The following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE				LOAD LINE
Tropical	43 inches	(T)	6 inches above	(S)
Summer	49 inches	(S)	*	
Winter	54 inches	(W)	6 inches below	(S)
Allowance for fresh water all freeboards				5 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 55 inches
- B. 49 inches
- C. 44 inches
- D. 41 inches

k - D

BOOK # 02 Question # 02101

. You are loading in a port subject to the summer load line mark and bound for a port subject to the winter load line mark. You will enter the winter zone after steaming four days. You will consume 35 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.0083, and the average TPI is 65. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE	LOAD LINE
Tropical	68 inches (T)	6 inches above (S)
Summer	74 inches (S)	*
Winter	80 inches (W)	6 inches below (S)
Allowance for fresh water all freeboards		6 inches

* Upper edge of line is at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 74 inches
- B. 78 inches
- C. 80 inches
- D. 86 inches

k - A

BOOK # 02 Question # 02096

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming ten days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.021, and the average TPI is 51. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE	LOAD LINE
Tropical	73 inches (T)	6 inches above (S)
Summer	79 inches (S)	*
Winter	85 inches (W)	6 inches below (S)
Allowance for fresh water all freeboards		6 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 76.0 inches
- B. 75.5 inches
- C. 72.0 inches
- D. 71.5 inches

k - D

BOOK # 02 Question # 02072

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming eight days, and you will enter the winter zone after ten days. You will consume 31 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.016, and the average TPI is following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	66 inches	(T)	6 inches above (S)
Summer	72 inches	(S)	*
Winter	78 inches	(W)	6 inches below (S)
Allowance for fresh water all freeboards			6 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 71 inches
- B. 69 inches
- C. 66 inches
- D. 65 inches

k - C
- C

BOOK # 02 Question # 02082

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming four days, and you will enter the winter zone after nine days. You will consume 29 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.008, and the average TPI is 53. The following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	75 inches	(T)	8 inches above (S)
Summer	83 inches	(S)	*
Winter	91 inches	(W)	8 inches below (S)
Allowance for fresh water all freeboards			9 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 72.5 inches
- B. 75.0 inches
- C. 77.0 inches
- D. 80.0 inches

k - D

BOOK # 02 QUESTION # 02044

. You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after twelve days. You will consume 31 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.000, and the average TPI is 46. The following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE				LOAD LINE
Tropical	72 inches	(T)	5 inches above	(S)
Summer	77 inches	(S)	*	
Winter	82 inches	(W)	5 inches below	(S)
Allowance for fresh water all freeboards				4 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 78 inches
- B. 74 inches
- C. 70 inches
- D. 68 inches

k - A

BOOK # 02 QUESTION # 02006

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one day, and you will enter the winter zone after eleven days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.004, and the average TPI is 46. The following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE				LOAD LINE
Tropical	81 inches	(T)	7 inches above	(S)
Summer	88 inches	(S)	*	
Winter	95 inches	(W)	7 inches below	(S)
Allowance for fresh water all freeboards				6 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 85 inches
- B. 82 inches
- C. 80 inches
- D. 78 inches

k - B

BOOK # 02 QUESTION # 01987

. You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after twelve days. You will consume 39 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.025, and the average TPI is 49. The following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE				LOAD LINE
Tropical	76 inches	(T)	7 inches above	(S)
Summer	83 inches	(S)	*	
Winter	90 inches	(W)	7 inches below	(S)
Allowance for fresh water all freeboards				10 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 90 inches
- B. 87 inches
- C. 80 inches
- D. 77 inches

k - A

BOOK # 02 QUESTION # 01735

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming eleven days, and you will enter the winter zone after fourteen days. You will consume 36 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.025, and the average TPI is 51. The following data is extracted from the Load Line Certificate:

FREEBOARD FROM DECK LINE				LOAD LINE
Tropical	75 inches	(T)	8 inches above	(S)
Summer	83 inches	(S)	*	
Winter	91 inches	(W)	8 inches below	(S)
Allowance for fresh water all freeboards				7 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 75.0 inches
- B. 76.0 inches
- C. 79.5 inches
- D. 81.0 inches

k - D

BOOK # 02 QUESTION # 01747

. You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after seven days. You will consume 38 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.004, and the average TPI is 72. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	81 inches (T)	7 inches above (S)	
Summer	88 inches (S)	*	
Winter	95 inches (W)	7 inches below (S)	
Allowance for fresh water all freeboards			6 inches

* Upper edge of line is at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 85 inches
- B. 90 inches
- C. 92 inches
- D. 94 inches

k - B

BOOK # 02 QUESTION # 01667

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one day, and you will enter the winter zone after eight days. You will consume 36 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.002, and the average TPI is 47. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	74 inches (T)	7 inches above (S)	
Summer	81 inches (S)	*	
Winter	88 inches (W)	7 inches below (S)	
Allowance for fresh water all freeboards			10 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 71.0 inches
- B. 72.7 inches
- C. 79.5 inches
- D. 81.0 inches

k - B

BOOK # 02 QUESTION # 01850

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one and one-half days, and you will enter the winter zone after six days. You will consume 29 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.006, and the average TPI is 43. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	71 inches	(T)	7 inches above (S)
Summer	78 inches	(S)	*
Winter	85 inches	(W)	7 inches below (S)
Allowance for fresh water all freeboards			6 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 79.5 inches
- B. 76.5 inches
- C. 75.0 inches
- D. 72.5 inches

k - B

BOOK # 02 QUESTION # 02017

. You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming six days. You will enter the winter zone after an additional three days. You will consume 28 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.020, and the average TPI is 46. The following data is extracted from the Load Line Certificate:

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	61 inches	(T)	5 inches above (S)
Summer	66 inches	(S)	*
Winter	71 inches	(W)	5 inches below (S)
Allowance for fresh water all freeboards			5 inches

* Upper edge of line at level of center of ring.

What is the minimum freeboard required at the start of the voyage?

- A. 61.4 inches
- B. 64.5 inches
- C. 70.6 inches
- D. 77.5 inches

k - B

BOOK # 04 QUESTION # 001151

You are on a supply run to an offshore rig with the following cargo on board:

- I. 50 drums of cement. Each drum weighs 600 pounds and is stowed on end. Each drum measures 28 inches in diameter and is 32 inches high.
- II. Two reels of 1 inch diameter wire rope. Each reel contains 3000 linear feet of wire weighing 1.55 pounds per linear foot. The tare weight of each reel is 450 pounds. The reels are stowed on the flat and are 36 inches high.
- III. Twelve pallets of general supplies. Each pallet measures 8'L X 4'W X 3'H. The pallets are stowed singly and weigh 580 pounds each.
- IV. Twelve crates of machine parts and pipe fittings. Each weighs 880 pounds. Each crate measures 8'L X 3'W X 4'H and is stowed singly.

What is the height above the main deck of the center of gravity of the cargo?

- A. 1.50 feet
- B. 1.96 feet
- C. 2.21 feet
- D. 2.78 feet

k - A

BOOK # 04 QUESTION # 00199

. You are on a supply run to an offshore rig with the following cargo on board:

- I. Drill casing - 50 lengths stowed in a block 8 feet high. Each pipe weighs 326 lbs.
- II. Crated valves - 10 crates stowed 2 high. Each crate is 36" L X 30" W X 15" H and weighs 1020 lbs.
- III. Dry stores - 14 containers stowed 2 high. Each container weighs 2 long tons and measures 6'L X 6'W X 6'H.
- IV. Anchors - 4. Each one on deck. The center of gravity of each anchor is 9" from the deck and each weighs 6120 lbs.

What is the height above deck of the center of gravity of the cargo?

- A. 3.6 feet
- B. 4.2 feet
- C. 4.4 feet
- D. 4.9 feet

k - B

BOOK # 04 QUESTION # 00941

. You are on a supply run to an offshore rig with the following cargo on board:

- I. 2 Danforth mooring anchors. Each anchor weighs 15,750 pounds. The center of gravity is 15 inches above the main deck.
- II. 90 fathoms of 3-inch diameter wire rope. The weight per linear foot is 18.7 pounds. The center of gravity of the wire is 22 inches above the main deck.

III. 10 cases of machine parts. Each case measures 6'L X 6'W X 4'H. The total weight of all of the cases is 6000 lbs. Each case is stowed on deck.

IV. 8 crates of galley stores. Each crate measures 4'L X 3'W X 2.5'H and weighs 380 pounds. Each crate is stowed on deck.

What is the height above the main deck of the center of gravity of the cargo?

- A. 0.96 foot
- B. 1.45 feet
- C. 1.96 feet
- D. 2.96 feet

k - B

BOOK # 04 QUESTION # 00641

You are on a supply run to an offshore drilling rig with the following cargo on board;

I. Two reels of hoisting wire. Each reel is 8 feet in circumference and 4 feet wide and has 3000 feet of wire. Both reels are stowed on the flat. Wire weighs 1.55 pounds per linear foot. The tare weight of each reel is 500 pounds.

II. Eight pallets of case goods stowed singly. Each pallet is 8'L X 4'W X 4'H and weighs 1 long ton.

III. 12 steel containers of cement. Each container weighs 1 1/2 tons. Each container is 8'L X 4'W X 4'H. The containers are stowed singly fore and aft.

IV. 10 crates of stewards stores. Each crate measures 4'L X 4'W 3'H and weighs 420 pounds. Each crate is stowed on deck.

What is the height above deck of the center of gravity of the cargo?

- A. 1.76 feet
- B. 1.97 feet
- C. 2.21 feet
- D. 2.32 feet

k - B

BOOK # 04 QUESTION # 00161

You are on a supply run to an offshore drilling rig with the following cargo on board:

I. Drill casing - 16 inches in diameter by 30 feet long. Twenty lengths each weighing 1.72 long tons and stowed in a single tier on deck.

II. Six pallets of oak planking - stowed two pallets high. Each pallet weighs 2.2 long tons. Each pallet is 3.0 feet high.

III. Crated piping and machine parts - 8 crates each 8'L X 4'W X 3'H. Each crate is stowed singly and weighs 660 pounds.

IV. Drill pipe - 6 inches in diameter by 30 feet long. 120 lengths, each weighing 0.644 long ton. The center of gravity of the pipes is 1.11 feet above the main deck.

What is the height above the main deck of the center of gravity of the cargo?

- A. 2.15 feet
- B. 1.83 feet
- C. 1.64 feet
- D. 1.19 feet

k - D

BOOK # 04 QUESTION # 00911

. You are on a supply run to an offshore rig with the following cargo on board:

I. Twenty drums of lube oil stowed on end. Each drum weighs 436 pounds. Diameter of drums is 24 inches and their height is 30 inches overall.

II. General supplies - 26 boxes stowed 2 high. Each box weighs 360 pounds and measures 6'L X 3'W X 2'H.

III. One electric generator weighing 2684 lbs. Stowed so the center of gravity is 3.2 feet above the main deck.

IV. Casing pipe - 29 each. Each pipe weighs 1.7 long tons. The pipe is stacked 3 high across the main deck. The center of gravity of the 10 casings in the 3rd tier is 3.75 feet; the 9 casings in the second tier is 2.3 feet; the 10 casings in the lower tier is 0.833 foot.

What is the height above the main deck of the center of gravity of the cargo?

- A. 3.75 feet
- B. 3.02 feet
- C. 2.22 feet
- D. 0.83 foot

k - C

BOOK # 04 QUESTION # 00959

You are on a supply run to an offshore drilling rig with the following cargo on board:

I. Two reels of hoisting wire. Each reel is 8 feet in circumference and 4 feet wide. Both reels are stowed on the flat and each has 3000 feet of wire. Wire weighs 1.55 pounds per linear foot. Tare weight of each reel is 500 pounds.

II. Eight pallets of case goods stowed singly. Each pallet is 8'L X 4'W X 4'H and weighs 1 long ton.

III. 12 steel containers of cement. Each container weighs 1 1/2 long tons. Each container is 8'L X 4'W 4'H. The containers are stowed singly fore and aft.

IV. 10 crates of stewards stores. Each crate measures 4'L X 4'W X 3'H and weighs 420 pounds. Each crate is stowed on deck.

What is the height above deck of the center of gravity of the cargo?

- A. 2.32 feet
- B. 2.21 feet
- C. 1.97 feet
- D. 1.76 feet

k - C

BOOK # 04 QUESTION # 01177

You are on a supply run to an offshore rig with the following cargo on board:

I. Intermediate drill casing - 10 lengths each 16 inches in diameter. Each length weighs 1.7 long tons. The center of gravity above the main deck of the casing stow is 1.8 feet.

II. Crated machine parts and assorted pipe fittings - 6 crates stowed two high. Each crate is 4'L X 3.5'W X 3'H. Each crate weighs 840 lbs.

III. 10 each - 55 gallon drums of lube oil stowed on end. Each drum weighs 462 pounds, is 26 inches in diameter and 32 inches high.

IV. Dry stores - 12 containers stowed two high. Each container weighs 0.9 long ton and measures 6'L X 4'W X 3'H.

What is the height above the deck of the center of gravity of the cargo?

- A. 1.20 feet
- B. 1.64 feet
- C. 2.26 feet
- D. 3.00 feet

k - C

BOOK # 04 QUESTION # 01141

. You are on a supply run to an offshore drilling rig with the following cargo on board:

I. Motor generator - one unit weighing 4850 pounds. The center of gravity is 32 inches above the main deck.

II. 50 drums of cement - each drum weighs 400 pounds and is stowed on end. Each drum is 28 inches in diameter and 32 inches high.

III. Ten pallets of cased lube oil - each pallet measures 8'L X 4'W X 4'H. Each pallet is stowed on deck and weighs 2.7 long tons.

IV. Drill collars - 10 lengths each 8" in diameter by 30 feet long. Stowed in a single layer on deck. Each length weighs 1.15 long tons.

What is the height above the main deck of the center of gravity of the deck cargo?

- A. 2.15 feet
- B. 2.05 feet
- C. 1.85 feet
- D. 1.52 feet

k - D

BOOK # 04 QUESTION # 01350

. You are on a supply run to an offshore drilling rig with the following cargo on board:

I. 50 drums of cement - each drum weighs 400 pounds and is stowed on end. Each drum is 28 inches in diameter and 32 inches high.

II. Crated piping and valves - 8 crates stowed 2 high. Each crate measures 8'L X 4'W X 2.5'H and weighs 640 pounds.

III. Stewards stores - 12 containers measuring 6'H X 6'W X 6'L. Each container weighs 960 pounds. The center of gravity of each container is 30 inches above the main deck.

IV. 20 lengths of drill casing - 16 inches in diameter by 30 feet long. Each length weighs 1.72 long tons and is stowed in a single tier on deck.

What is the height above the main deck of the center of gravity of the deck cargo?

- A. 2.45 feet
- B. 1.95 feet
- C. 1.05 feet
- D. 0.90 foot

k - C

BOOK # 04 QUESTION # 01480

. You are on a supply run to an offshore drilling rig with the following cargo on board:

I. 116 lengths of drill pipe. Each pipe weighs 0.644 long ton. The center of gravity is 1.11 feet above the main deck.

II. 10 containers 8'L X 4'W X 3'H containing assorted pipe fittings and machine parts. Each container weighs 1-1/4 long tons, and the center of gravity of each box is 1.35 feet above the main deck.

III. Two 90-fathom lengths of 3-inch diameter wire rope coiled on the main deck. Each foot of wire rope weighs 18.7 pounds. The center of gravity of the coil is 27 inches above the main deck.

IV. 6 pallets of oak planking. Each pallet weighs 2-1/2 long tons with a center of gravity of 2.2 feet above the main deck.

What is the height above the main deck of the center of gravity of the cargo?

- A. 2.23 feet
- B. 1.93 feet
- C. 1.82 feet
- D. 1.38 feet

k - D

BOOK # 04 QUESTION # 03504

. The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 6280 tons of cargo on board with a KG of 25.5 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1	Third Deck	70
No. 2	Third Deck	80
No. 2	Tank Top	85
No. 4	Second Deck	100
No. 4	Third Deck	75
No. 4	Tank Top	60
No. 5	Tank Top	100
No. 5	Upper (Reefer)	75
No. 5	Third Deck Reefer	70
No. 6	Second Deck	40
No. 6	Third Deck	40
No. 7	Second Deck	100
No. 7	Third Deck	50

- A. KG 25.3 feet
- B. KG 25.7 feet
- C. KG 26.3 feet
- D. KG 27.1 feet

Key - C

BOOK # 04 QUESTION # 03464

. The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 3175 tons of cargo on board with a KG of 25.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1	Second Deck	420
No. 2	Third Deck	410
No. 3	Third Deck	406
No. 4	Third Deck	418
No. 5	Tank Top	421
No. 6	Third Deck	412

- A. KG 26.8 feet
- B. KG 27.3 feet
- C. KG 28.2 feet
- D. KG 28.5 feet

Key - A

BOOK # 04 QUESTION # 03448

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 3485 tons of cargo on board with a KG of 24.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1	Second Deck	160
No. 2	Third Deck	85
No. 2	Tank Top	70

No. 3 Second Deck	80
No. 3 Tank Top	75
No. 4 Second Deck	40
No. 4 Tank Top	120
No. 5 26'-6", Flat (Reefer)	150
No. 6 Second Deck	85
No. 6 Third Deck	70

- A. KG 25.1 feet
- B. KG 25.6 feet
- C. KG 26.0 feet
- D. KG 26.5 feet

Key - B

BOOK # 04 QUESTION # 03384

. 12352.03 The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 4236 tons of cargo on board with a KG of 27.2 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Second Deck	80
No. 1 Third Deck	75
No. 2 Third Deck	60
No. 2 Tank Top	94
No. 3 Second Deck	101
No. 3 Tank Top	57
No. 4 Third Deck	75
No. 4 Tank Top	83
No. 5 Tank Top	90
No. 5 26'-6" Flat (Reefer)	30
No. 5 Third Dk Reefer	30

- A. KG 26.9 feet
- B. KG 27.3 feet
- C. KG 27.8 feet
- D. KG 28.1 feet

Key - A

BOOK # 04 QUESTION # 03434

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 4260 tons of cargo on board with a KG of 25.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Second Deck	70
No. 1 Third Deck	70
No. 2 Third Deck	80

No. 2 Tank Top	65
No. 3 Third Deck	55
No. 3 Tank Top	80
No. 4 Second Deck	50
No. 4 Tank Top	90
No. 5 Upper Level Flat	70
No. 5 Tank Top	70
No. 6 Second Deck	80
No. 6 Third Deck	60

- A. KG 24.6 feet
- B. KG 25.0 feet
- C. KG 25.4 feet
- D. KG 25.9 feet

k - D

BOOK # 04 QUESTION # 03583

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 2 P	71.2	DB 5 CL	196.2
DB 2 S	71.2	DB 5 P	178.0
DB 3 CL	220.0	DB 5 S	180.0
DB 3 P	55.6	DB 6 CL	242.3
DB 3 S	55.6	DB 6 P	87.0
DB 4 CL	224.1	DB 6 S	87.0
DB 4 P	128.1	DB 7 P	94.6
DB 4 S	128.1	DB 7 S	94.6
DT 4 P/S		110.0	
DT 5 P/S		108.4	

- A. 2.6 feet
- B. 2.8 feet
- C. 3.1 feet
- D. 4.3 feet

k - D

BOOK # 04 QUESTION # 03411

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 4 CL	224.1	DT 2 P	100.7
DB 4 P	128.1	DT 2 S	100.7
DB 4 S	128.1	DT 3 P	86.1
DB 5 CL	180.0	DT 3 S	86.1
DB 5 P	178.0	DT 4 P/S	105.0
DB 5 S	180.0	DT 5 P/S	108.4

DB 6 CL	242.3	DIST WATER CL	20.0
DB 6 P	87.0		
DB 6 S	87.0		

- A. 7.9 feet
- B. 7.3 feet
- C. 6.4 feet
- D. 4.3 feet

k - A

BOOK # 04 QUESTION # 03432

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 4 CL	224.1	DB 6 CL	200.0
DB 4 P	128.1	DB 6 P	87.0
DB 4 S	128.1	DB 6 S	87.0
DB 5 CL	196.2	DT 1A CL	257.6
DB 5 P	178.0	DT 5 P/S	108.4
DB 5 S	180.0		

- A. 6.1 feet
- B. 5.8 feet
- C. 5.4 feet
- D. 4.9 feet

k - B

BOOK # 04 QUESTION # 03482

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 2 P	71.2	DB 5 CL	196.2
DB 2 S	71.2	DB 5 P	178.0
DB 3 CL	227.6	DB 5 S	180.0
DB 3 P	55.6	DB 6 CL	242.3
DB 3 S	55.6	DB 6 P	87.0
DB 4 CL	150.0	DB 6 S	87.0
DB 4 P	100.0	DB 7 P	94.6
DB 4 S	90.0	DB 7 S	94.6
	DT 1 CL	125.3	
	DT 1A CL	257.6	

- A. 5.1 feet
- B. 4.9 feet
- C. 2.9 feet
- D. 2.5 feet

k - B

BOOK # 04 QUESTION # 03514

. The SS AMERICAN MARINER has the liquid load indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 4 CL	224.1	DB 7 P	90.0
DB 4 P	128.1	DB 7 S	90.0
DB 4 S	128.1	DT 1 CL	125.3
DB 5 CL	196.2	DT 1A CL	257.6
DB 5 P	178.0	DT 4 P/S	100.0
DB 5 S	180.0	DT 5 P/S	108.4
DB 6 CL	242.3	DIST WATER CL	24.9
DB 6 P	87.0		
DB 6 S	87.0		

- A. 2.8 feet
- B. 4.6 feet
- C. 6.8 feet
- D. 7.1 feet

k - D

BOOK # 04 QUESTION # 02317

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DB 7 P	94.6
DB 1A CL	81.9	DB 7 S	94.6
DB 4 CL	224.1	DT 2 P	100.7
DB 4 P	128.1	DT 2 S	100.7
DB 4 S	128.1	DT 3 P	86.1
DB 5 CL	196.2	DT 3 S	86.1
DB 5 P	178.0	DT 4 P/S	110.0
DB 5 S	180.0	DT 5 P/S	108.4
DB 6 CL	242.3	DIST. WATER	24.9

- A. 7.7 feet
- B. 9.1 feet
- C. 9.9 feet
- D. 10.6 feet

k - A

BOOK # 04 QUESTION # 02443

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DB 7 P	94.6
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DB 1A CL	81.9	DB 7 S	94.6
DB 3 P	55.6	DT 3 P	86.1
DB 3 S	55.6	DT 3 S	86.1
DB 4 CL	224.1	DT 4 P/S	120.0
DB 4 P	128.1	DT 5 P/S	108.4
DB 4 S	128.1		
DB 5 CL	196.2		
DB 6 CL	242.3		

- A. 4.0 feet
- B. 5.6 feet
- C. 6.0 feet
- D. 6.8 feet

k - D

BOOK # 04 QUESTION # 02464

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 2 P	71.2	DB 5 P	178.0
DB 2 S	71.2	DB 5 S	180.0
DB 3 CL	220.0	DB 6 CL	242.3
DB 3 P	55.6	DB 6 P	87.0
DB 3 S	55.6	DB 6 S	87.0
DB 4 CL	224.1	DB 7 P	94.6
DB 4 P	128.1	DB 7 S	94.6
DB 4 S	128.1	DT 4 P/S	110.0
DB 5 CL	196.2	DT 5 P/S	108.4

- A. 3.9 feet
- B. 4.3 feet
- C. 4.7 feet
- D. 5.1 feet

k - B

BOOK # 04 QUESTION # 02518

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DB 6 P	87.0
DB 1A CL	81.9	DB 6 S	87.0
DB 2 P	71.2	DB 7 P	94.6
DB 2 S	71.2	DB 7 S	94.6
DB 4 CL	224.1	DT 3 P	86.1
DB 4 P	128.1	DT 3 S	86.1
DB 4 S	128.1	DT 4 P/S	120.0
DB 5 CL	196.2		

- A. 4.0 feet
- B. 5.6 feet
- C. 6.0 feet
- D. 6.8 feet

k - C

BOOK # 04 QUESTION # 02677

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DB 6 CL	242.3
DB 1A CL	81.9	DB 6 P	87.0
DB 3 P	55.6	DB 6 S	87.0
DB 3 S	55.6	DB 7 P	94.6
DB 4 CL	224.1	DB 7 S	94.6
DB 4 P	128.1	DT 3 P	86.1
DB 4 S	128.1	DT 3 S	86.1
DB 5 CL	196.2	DT 4 P/S	120.0

- A. 4.0 feet
- B. 5.6 feet
- C. 6.0 feet
- D. 6.8 feet

k - B

BOOK # 04 QUESTION # 02705

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DB 4 S	128.1
DB 2 P	71.2	DB 5 CL	196.2
DB 2 S	71.2	DB 6 CL	242.3
DB 3 P	55.6	DB 7 P	94.6
DB 3 S	55.6	DB 7 S	94.6
DB 4 CL	224.1	DT 5 P/S	108.4
DB 4 P	128.1		

- A. 4.0 feet
- B. 5.6 feet
- C. 6.0 feet
- D. 6.8 feet

k - A

BOOK # 04 QUESTION # 02837

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DB 7 S	94.6
DB 2 P	71.2	DT 2 P	100.0
DB 2 S	71.2	DT 2 S	100.0
DB 3 P	55.6	DT 3 P	86.0
DB 3 S	55.6	DT 3 S	86.0
DB 4 CL	224.1	DT 4 P/S	120.0
DB 5 CL	196.2	DT 5 P/S	108.4
DB 6 CL	242.3	DT 6 P	201.0
DB 7 P	94.6	DT 6 S	201.0

- A. 7.7 feet
- B. 9.1 feet
- C. 9.9 feet
- D. 10.6 feet

k - B

BOOK # 04 QUESTION # 03030

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DT 2 P	100.0
DB 1A CL	81.9	DT 2 S	100.0
DB 2 P	71.2	DT 3 P	86.0
DB 2 S	71.2	DT 3 S	86.0
DB 3 P	55.6	DT 4 P/S	120.0
DB 3 S	55.6	DT 5 P/S	108.4
DB 5 CL	196.2	DT 6 P	201.0
DB 7 P	94.6	DT 6 S	201.0
DB 7 S	94.6		

- A. 7.7 feet
- B. 9.1 feet
- C. 9.9 feet
- D. 10.6 feet

k - D

BOOK # 04 QUESTION # 03083

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DT 2 P	100.0
DB 1A CL	81.9	DT 2 S	100.0
DB 2 P	71.2	DT 3 P	86.0
DB 2 S	71.2	DT 3 S	86.0
DB 3 P	55.6	DT 4 P/S	120.0
DB 3 S	55.6	DT 5 P/S	108.4
DB 5 CL	196.2	DT 6 P	201.0
DB 7 P	87.0	DT 6 S	201.0

DB 7 S 87.0

- A. 7.7 feet
- B. 9.1 feet
- C. 9.9 feet
- D. 10.7 feet

k - D

BOOK # 04 QUESTION # 03109

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the KG of the liquid load.

DB 1 CL	48.2	DB 5 CL	196.2
DB 1A CL	81.9	DB 6 CL	242.3
DB 2 P	71.2	DB 6 P	87.0
DB 2 S	71.2	DB 6 S	87.0
DB 3 CL	227.6	DB 7 P	94.6
DB 4 CL	224.1	DB 7 S	94.6
DB 4 P	128.1	DT 4 P/S	120.0
DB 4 S	128.1		

- A. 3.9 feet
- B. 4.3 feet
- C. 4.7 feet
- D. 5.1 feet

k - A

BOOK # 04 QUESTION 03042

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 4 CL 224.1	DB 6 CL 200.0
DB 4 P 128.1	DB 6 P 87.0
DB 4 S 128.1	DB 6 S 87.0
DB 5 CL 196.2	DT 1A CL 257.6
DB 5 P 178.0	DT 5 P/S 108.4
DB 5 S 180.0	

- A. 271.2 ft
- B. 260.3 ft
- C. 251.9 ft
- D. 247.2 ft

k - C

BOOK # 04 QUESTION # 03036

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 2 P	71.2	DB 5 CL	196.2
DB 2 S	71.2	DB 5 P	178.0
DB 3 CL	220.0	DB 5 S	180.0
DB 3 P	55.6	DB 6 CL	242.3
DB 3 S	55.6	DB 6 P	87.0
DB 4 CL	224.1	DB 6 S	87.0
DB 4 P	128.1	DB 7 P	94.6
DB 4 S	128.1	DB 7 S	94.6
DT 4 P/S		110.0	
DT 5 P/S		108.4	

- A. 262.3 ft
- B. 264.9 ft
- C. 268.1 ft
- D. 270.3 ft

k - C

BOOK # 04 QUESTION # 03008

. The SS AMERICAN MARINER has the liquid load indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 2 P	71.2	DB 6 CL	242.3
DB 2 S	71.2	DB 6 P	87.0
DB 3 CL	227.6	DB 6 S	87.0
DB 3 P	55.6	DB 7 P	90.0
DB 3 S	55.6	DB 7 S	90.0
DB 4 CL	224.1	DT 3 P	86.1
DB 4 P	128.1	DT 3 S	86.1
DB 4 S	128.1	DT 6 P	201.2
DB 5 CL	196.2	DT 6 S	201.2
DB 5 P	178.0	DT 4 P/S	100.0
DB 5 S	180.0	DT 5 P/S	108.4
DIST WATER CL 20.0			

- A. 280.2 ft
- B. 284.1 ft
- C. 285.3 ft
- D. 286.1 ft

k - D

BOOK # 04 QUESTION # 02996

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 4 CL	224.1	DT 2 P	100.7
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DB 4 P	128.1	DT 2 S	100.7
DB 4 S	128.1	DT 3 P	86.1
DB 5 CL	180.0	DT 3 S	86.1
DB 5 P	178.0	DT 4 P/S	105.0
DB 5 S	180.0	DT 5 P/S	108.4
DB 6 CL	242.3	DIST WATER CL	20.0
DB 6 P	87.0		
DB 6 S	87.0		

- A. 286.1 ft
- B. 282.7 ft
- C. 278.6 ft
- D. 272.4 ft

k - B

BOOK # 04 QUESTION # 03286

. The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2	DB 6 CL	242.3
DB 1A CL	81.9	DB 6 P	87.0
DB 2 P	71.2	DB 6 S	87.0
DB 2 S	71.2	DB 7 P	94.6
DB 3 CL	227.6	DB 7 S	94.6
DB 3 P	55.6	DT 1 CL	125.3
DB 3 S	55.6	DT 1A CL	257.6
DB 4 CL	224.1	DT 6 P	201.2
DB 4 P	128.1	DT 6 S	201.2
DB 4 S	128.1	DT 4 P/S	120.0
DB 5 CL	196.2	DT 5 P/S	108.4
DB 5 P	150.0	DIST WATER CL	20.0
DB 5 S	150.0		

- A. 270.6 ft
- B. 261.2 ft
- C. 250.5 ft
- D. 246.8 ft

k - C

BOOK # 04 QUESTION # 03249

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2	DB 6 CL	200.0
DB 1A CL	81.9	DB 6 P	87.0
DB 2 P	71.2	DB 6 S	87.0
DB 2 S	71.2	DT 1A CL	257.6
DB 4 CL	224.1	DT 4 P/S	50.0
DB 4 P	128.1	DT 5 P/S	108.4

DB 4 S	128.1	DIST WATER CL 10.0
DB 5 CL	196.2	
DB 5 P	178.0	
DB 5 S	180.0	

- A. 231.0 ft
- B. 234.3 ft
- C. 244.6 ft
- D. 251.5 ft

k - A

BOOK # 04 QUESTION # 03285

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2	DB 7 P	94.6
DB 1A CL	81.9	DB 7 S	94.6
DB 2 P	71.2	DT 2 P	100.7
DB 2 S	71.2	DT 2 S	100.7
DB 4 P	128.1	DT 6 P	201.2
DB 4 S	128.1	DT 6 S	201.2
DB 5 CL	196.2	DT 7 P	128.8
DB 5 P	178.0	DT 7 S	128.8
DB 5 S	180.0	DT 4 P/S	110.0
DB 6 CL	200.0	DT 5 P/S	108.4
DB 6 P	87.0	DIST WATER CL 20.0	
DB 6 S	87.0		

- A. 271.2 ft
- B. 288.8 ft
- C. 292.3 ft
- D. 307.2 ft

k - D

BOOK # 04 QUESTION # 03315

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	196.2
DB 5 P	178.0
DB 5 S	180.0
DB 6 CL	200.0
DB 6 P	87.0
DB 6 S	87.0
DB 7 P	94.6

DB 7 S	94.6
DT 2 P	100.7
DT 2 S	100.7
DT 7 P	128.8
DT 7 S	128.8
DT 4 P/S	110.0
DT 5 P/S	108.4
DIST WATER CL	20.0

- A. 271.2 ft
- B. 291.0 ft
- C. 292.2 ft
- D. 305.3 ft

k - B

BOOK # 04 QUESTION # 03528

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	196.2
DB 5 P	178.0
DB 5 S	180.0
DB 6 CL	200.0
DB 6 P	87.0
DB 6 S	87.0
DB 7 P	94.6
DB 7 S	94.6
DT 2 P	100.7
DT 2 S	100.7
DT 6 P	201.2
DT 6 S	201.2
DT 4 P/S	110.0
DT 5 P/S	108.4
DIST WATER CL	20.0

- A. 271.2 ft
- B. 288.8 ft
- C. 294.4 ft
- D. 305.3 ft

k - C

BOOK # 04 QUESTION # 03658

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2	DB 6 CL	200.0
DB 1A CL	81.9	DB 6 P	87.0

DB 2 P	71.2	DB 6 S	87.0
DB 2 S	71.2	DB 7 P	94.6
DB 4 CL	224.1	DB 7 S	94.6
DB 4 P	128.1	DT 2 P	100.7
DB 4 S	128.1	DT 2 S	100.7
DB 5 CL	196.2	DT 4 P/S	110.0
DB 5 P	178.0	DT 5 P/S	108.4
DB 5 S	180.0	DIST WATER CL	20.0

- A. 226.9 ft
- B. 238.3 ft
- C. 252.4 ft
- D. 268.8 ft

k - D

BOOK # 04 QUESTION # 03832

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 4 CL	224.1
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	196.2
DB 5 P	178.0
DB 5 S	180.0
DB 6 CL	200.0
DB 6 P	87.0
DB 6 S	87.0
DT 2 P	100.7
DT 2 S	100.7
DT 4 P/S	110.0
DT 5 P/S	108.4
DIST WATER CL	20.0

- A. 229.8 ft
- B. 234.3 ft
- C. 246.8 ft
- D. 251.5 ft

k - C

BOOK # 04 QUESTION # 03934

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2
DB 1A CL	81.9

DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 4 CL	224.1
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	196.2
DB 5 P	178.0
DB 5 S	180.0
DB 6 CL	200.0
DB 6 P	87.0
DB 6 S	87.0
DT 1A CL	257.6
DT 2 P	100.7
DT 2 S	100.7
DT 4 P/S	110.0
DT 5 P/S	108.4
DIST WATER CL	20.0

- A. 228.8 ft
- B. 238.3 ft
- C. 252.4 ft
- D. 266.5 ft

k - A

BOOK # 04 QUESTION # 04114

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2	DB 6 CL	200.0
DB 1A CL	81.9	DB 6 P	87.0
DB 2 P	71.2	DB 6 S	87.0
DB 2 S	71.2	DT 1A CL	257.6
DB 4 P	128.1	DT 2 P	100.7
DB 4 S	128.1	DT 2 S	100.7
DB 5 CL	196.2	DT 4 P/S	110.0
DB 5 P	178.0	DT 5 P/S	108.4
DB 5 S	180.0	DIST WATER CL	20.0

- A. 229.8 ft
- B. 236.7 ft
- C. 244.6 ft
- D. 251.5 ft

k - B

BOOK # 04 QUESTION # 04178

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2	DB 6 CL	200.0
DB 1A CL	81.9	DB 6 P	87.0

DB 2 P	71.2	DB 6 S	87.0
DB 2 S	71.2	DT 1A CL	257.6
DB 3 P	55.6	DT 2 P	100.7
DB 3 S	55.6	DT 2 S	100.7
DB 4 P	128.1	DT 7 P	128.8
DB 4 S	128.1	DT 7 S	128.8
DB 5 CL	196.2	DT 4 P/S	110.0
DB 5 P	178.0	DT 5 P/S	108.4
DB 5 S	180.0	DIST WATER CL	20.0

- A. 229.8 ft
- B. 234.3 ft
- C. 244.6 ft
- D. 253.5 ft

k - D

BOOK # 04 QUESTION # 04222

The SS AMERICAN MARINER has the liquid loading indicated below. Use the white pages of the Stability Data Reference Book to determine the LCG-FP of the liquid load.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 P	55.6
DB 3 S	55.6
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	196.2
DB 5 P	178.0
DB 5 S	180.0
DB 6 CL	200.0
DT 2 P	100.7
DT 2 S	100.7
DT 6 P	201.2
DT 6 S	201.2
DT 4 P/S	110.0
DT 5 P/S	80.0
DIST WATER CL	20.0

- A. 273.5 ft
- B. 288.8 ft
- C. 292.3 ft
- D. 305.3 ft

k - A

BOOK # 04 QUESTION # 03168

. The SS AMERICAN MARINER has on board 6080 tons of cargo with an LCG-FP of 270.71 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Second Deck	75	
No. 1	Third Deck	80	
No. 2	Third Deck	60	
No. 2	Tank Top	90	
No. 3	Second Deck	80	
No. 3	Third Deck	75	
No. 4	Third Deck	90	
No. 4	Tank Top	60	
No. 5	Second Deck	50	
No. 5	26'-6" Flat	50	
No. 5	Third Deck	50	
No. 5	26'-6" Flat (Reefer)	70	
No. 6	Second Deck	75	
No. 6	Third Deck	60	
No. 7	Third Deck	80	

- A. LCG-FP 270.8 feet
- B. LCG-FP 269.2 feet
- C. LCG-FP 267.6 feet
- D. LCG-FP 266.7 feet

k - D

BOOK # 04 QUESTION # 03146

. The SS AMERICAN MARINER has on board 6048 tons of cargo with an LCG-FP of 270.89 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Third Deck	90	
No. 2	Third Deck	80	
No. 2	Tank Top	100	
No. 3	Second Deck	50	
No. 3	Third Deck	80	
No. 3	Tank Top	75	
No. 4	Tank Top	100	
No. 5	Third Deck	80	
No. 5	Upper (Reefer)	50	
No. 5	Third Deck Reefer	60	
No. 6	Second Deck	100	
No. 7	Second Deck	80	

- A. LCG-FP 263.4 feet
- B. LCG-FP 266.6 feet
- C. LCG-FP 267.8 feet
- D. LCG-FP 269.4 feet

k - B

BOOK # 04 QUESTION # 03072

. The SS AMERICAN MARINER has on board 6450 tons of cargo with an LCG-FP of 274.46 feet. The cargo tonnages listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Second Deck	60
No. 1	Third Deck	70
No. 2	Second Deck	40
No. 2	Tank Top	100
No. 3	Third Deck	60
No. 3	Tank Top	70
No. 4	Second Deck	50
No. 4	Tank Top	80
No. 5	Second Deck	60
No. 5	Tank Top	60
No. 6	Second Deck	100
No. 7	Third Deck	80

- A. LCG-FP 272.6 feet
- B. LCG-FP 269.8 feet
- C. LCG-FP 266.5 feet
- D. LCG-FP 263.8 feet

k - B

BOOK # 04 QUESTION # 03118

. The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 275.72 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Third Deck	150
No. 2	Tank Top	100
No. 3	Third Deck	75
No. 3	Tank Top	50
No. 4	Second Deck	80
No. 4	Third Deck	100
No. 5	Third Deck	90
No. 5	Tank Top	100
No. 6	Third Deck	120

- A. LCG-FP 268.3 feet
- B. LCG-FP 265.4 feet
- C. LCG-FP 261.2 feet
- D. LCG-FP 256.9 feet

k - A

BOOK # 04 QUESTION #03106

. The SS AMERICAN MARINER has on board 5480 tons of cargo with an LCG-FP of 272.20 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Second Deck	70
No. 1	Third Deck	70
No. 2	Third Deck	80
No. 2	Tank Top	65
No. 3	Third Deck	55

No. 3 Tank Top	80
No. 4 Second Deck	50
No. 4 Tank Top	90
No. 5 Upper Level Flat	70
No. 5 Tank Top	70
No. 6 Second Deck	80
No. 6 Third Deck	60

- A. LCG-FP 272.2 feet
- B. LCG-FP 268.3 feet
- C. LCG-FP 265.1 feet
- D. LCG-FP 263.4 feet

k - C

BOOK # 04 QUESTION # 07052

. The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 274.46 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Second	75
No. 2 Tank Top	120
No. 3 Second Deck	60
No. 3 Third Deck	100
No. 3 Tank Top	80
No. 4 Third Deck	150
No. 5 Upper Level Flat	120
No. 5 Tank Top	90
No. 5 Third Deck (Reefer)	80
No. 6 Third Deck	40
No. 7 Second Deck	125

- A. LCG-FP 271.23 feet
- B. LCG-FP 270.96 feet
- C. LCG-FP 269.52 feet
- D. LCG-FP 267.88 feet

k - A

BOOK # 04 QUESTION # 06102

. The SS AMERICAN MARINER has on board 5480 tons of cargo with an LCG-FP of 274.46 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Third Deck	40
No. 2 Second Deck	30
No. 2 Third Deck	50
No. 2 Tank Top	80
No. 3 Tank Top	80
No. 4 Tank Top	220
No. 5 Tank Top	110
No. 5 Third Deck (Reefer)	40
No. 6 Second Deck	160

No. 6 Third Deck 80

- A. LCG-FP 271.79 feet
- B. LCG-FP 272.87 feet
- C. LCG-FP 274.04 feet
- D. LCG-FP 275.13 feet

k - B

BOOK # 04 QUESTION # 06618

. The SS AMERICAN MARINER has on board 6048 tons of cargo with an LCG-FP of 270.71 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Third Deck 60
No. 2 Second Deck 50
No. 2 Third Deck 90
No. 2 Tank Top 40
No. 3 Second Deck 120
No. 3 Tank Top 70
No. 5 Main Deck 120
No. 5 Tank Top 280
No. 6 Second Deck 30

- A. LCG-FP 267.03 feet
- B. LCG-FP 267.92 feet
- C. LCG-FP 268.66 feet
- D. LCG-FP 269.94 feet

k - A

BOOK # 04 QUESTION # 06619

. The SS AMERICAN MARINER has on board 6450 tons of cargo with an LCG-FP of 270.89 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Second 80
No. 2 Second Deck 110
No. 2 Tank Top 70
No. 3 Tank Top 90
No. 4 Third Deck 35
No. 5 Second Deck 60
No. 5 Tank Top 220
No. 6 Second Deck 40
No. 6 Third Deck 70
No. 7 Second Deck 100

- A. LCG-FP 267.12 feet
- B. LCG-FP 268.48 feet
- C. LCG-FP 270.97 feet
- D. LCG-FP 273.06 feet

k - C

BOOK # 04 QUESTION # 04326

The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 279.84 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Main Deck	60	
No. 1 Third Deck	80	
No. 2 Second Deck	70	
No. 2 Tank Top	220	
No. 3 Second Deck		50
No. 4 Third Deck	110	
No. 4 Tank Top	350	
No. 5 Upper Level Flat	110	
No. 5 Upper (Reefer)		80
No. 6 Main Deck	90	
No. 6 Third Deck	110	
No. 7 Third Deck	80	

- A. LCG-FP 267.7 feet
- B. LCG-FP 268.4 feet
- C. LCG-FP 269.2 feet
- D. LCG-FP 270.6 feet

k - D

BOOK # 04 QUESTION # 04336

The SS AMERICAN MARINER has on board 5486 tons of cargo with an LCG-FP of 277.84 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Third Deck	80	
No. 2 Second Deck		70
No. 2 Tank Top	120	
No. 3 Second Deck	50	
No. 3 Tank Top	410	
No. 4 Tank Top	350	
No. 5 Upper Level Flat	110	
No. 5 Tank Top	180	
No. 5 Upper (Reefer)		80
No. 6 Main Deck	90	
No. 6 Third Deck	180	
No. 7 Third Deck	140	

- A. LCG-FP 271.2 feet
- B. LCG-FP 272.1 feet
- C. LCG-FP 273.6 feet
- D. LCG-FP 274.6 feet

k - C

BOOK # 04 QUESTION # 04402

The SS AMERICAN MARINER has on board 6584 tons of cargo with an LCG-FP of 277.84 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Second Deck	60
No. 2	Second Deck	70
No. 2	Tank Top	120
No. 3	Second Deck	180
No. 3	Tank Top	410
No. 4	Second Deck	140
No. 5	Upper Level Flat	110
No. 5	Tank Top	180
No. 6	Main Deck	90
No. 6	Second Deck	70
No. 6	Third Deck	180
No. 7	Third Deck	140

- A. LCG-FP 271.2 feet
- B. LCG-FP 272.1 feet
- C. LCG-FP 273.6 feet
- D. LCG-FP 274.6 feet

k - D

BOOK # 04 QUESTION # 04484

The SS AMERICAN MARINER has on board 6285 tons of cargo with an LCG-FP of 272.45 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Second Deck	60
No. 2	Second Deck	120
No. 2	Tank Top	140
No. 3	Second Deck	180
No. 4	Second Deck	140
No. 4	Tank Top	320
No. 5	Second Deck	70
No. 5	Tank Top	180
No. 6	Main Deck	90
No. 6	Second Deck	70
No. 6	Third Deck	180
No. 7	Third Deck	140

- A. LCG-FP 271.2 feet
- B. LCG-FP 272.1 feet
- C. LCG-FP 273.6 feet
- D. LCG-FP 274.6 feet

k - B

BOOK # 04 QUESTION # 04534

The SS AMERICAN MARINER has on board 5577 tons of cargo with an LCG-FP of 275.55 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1	Main Deck	70
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No. 2 Second Deck	120
No. 2 Third Deck	130
No. 3 Second Deck	180
No. 3 Tank Top	430
No. 4 Tank Top	320
No. 5 Tank Top	320
No. 6 Second Deck	70
No. 6 Third Deck	180
No. 7 Main Deck	120
No. 7 Third Deck	140

- A. LCG-FP 271.2 feet
- B. LCG-FP 272.1 feet
- C. LCG-FP 273.6 feet
- D. LCG-FP 274.6 feet

k - A

BOOK # 04 QUESTION # 04574

The SS AMERICAN MARINER has on board 4824 tons of cargo with an LCG-FP of 277.45 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Main Deck	90
No. 2 Second Deck	160
No. 2 Third Deck	130
No. 3 Second Deck	180
No. 4 Second Deck	220
No. 4 Tank Top	320
No. 5 Upper (Reefer)	110
No. 6 Second Deck	70
No. 7 Main Deck	120
No. 7 Third Deck	140

- A. LCG-FP 267.7 feet
- B. LCG-FP 268.4 feet
- C. LCG-FP 269.2 feet
- D. LCG-FP 270.6 feet

k - C

BOOK # 04 QUESTION # 04644

The SS AMERICAN MARINER has on board 7240 tons of cargo with an LCG-FP of 273.20 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Main Deck	120
No. 2 Third Deck	120
No. 3 Second Deck	80
No. 3 Tank Top	320
No. 5 Main Deck	90
No. 5 Third Deck	210
No. 5 Tank Top	450
No. 7 Main Deck	110
No. 7 Third Deck	140

- A. LCG-FP 271.2 feet
- B. LCG-FP 272.1 feet
- C. LCG-FP 273.6 feet
- D. LCG-FP 275.3 feet

k - D

BOOK # 04 QUESTION # 04652

The SS AMERICAN MARINER has on board 3245 tons of cargo with an LCG-FP of 272.20 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Main Deck	90	
No. 1 Second Deck	100	
No. 2 Second Deck	160	
No. 2 Third Deck	130	
No. 3 Tank Top	380	
No. 4 Tank Top	320	
No. 5 Tank Top	360	
No. 5 Upper (Reefer)		110
No. 6 Main Deck	120	
No. 6 Second Deck	110	
No. 7 Main Deck	120	
No. 7 Third Deck	140	

- A. LCG-FP 267.7 feet
- B. LCG-FP 268.4 feet
- C. LCG-FP 269.2 feet
- D. LCG-FP 270.6 feet

k - A

BOOK # 04 QUESTION # 04748

The SS AMERICAN MARINER has on board 3885 tons of cargo with an LCG-FP of 278.45 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Main Deck	90	
No. 1 Second Deck	100	
No. 2 Second Deck	160	
No. 2 Third Deck	130	
No. 3 Second Deck	180	
No. 3 Tank Top	380	
No. 4 Tank Top	320	
No. 5 Second Deck	160	
No. 5 Tank Top	360	
No. 5 Upper (Reefer)		110
No. 6 Second Deck	110	
No. 7 Main Deck	120	
No. 7 Third Deck	140	

- A. LCG-FP 267.7 feet
- B. LCG-FP 268.4 feet

- C. LCG-FP 269.2 feet
- D. LCG-FP 270.6 feet

k - B

BOOK # 04 QUESTION # 04778

The SS AMERICAN MARINER has on board 5540 tons of cargo with an LCG-FP of 272.20 feet. The cargo listed below will be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.

No. 1 Main Deck	120	
No. 2 Second Deck	120	
No. 2 Third Deck	130	
No. 3 Tank Top	380	
No. 4 Tank Top	320	
No. 5 Upper (Reefer)		110
No. 6 Main Deck	120	
No. 6 Second Deck	110	
No. 7 Main Deck	120	
No. 7 Third Deck	140	

- A. LCG-FP 266.5 feet
- B. LCG-FP 267.7 feet
- C. LCG-FP 268.4 feet
- D. LCG-FP 269.2 feet

k - A

BOOK # 04 QUESTION # 1041

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 2685 tons of cargo on board with a KG of 27.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Main Deck	60	
No. 2 Second Deck	90	
No. 2 Tank Top		120
No. 3 Second Deck	90	
No. 3 Third Deck		250
No. 3 Tank Top		400
No. 4 Second Deck		110
No. 5 Second deck	50	
No. 5 Tank Top		480
No. 5 Upper Reefer		90
No. 6 Second Deck		120
No. 7 Third Deck		250

- A. KG 25.4 feet
- B. KG 26.0 feet
- C. KG 26.6 feet
- D. KG 27.2 feet

k - B

BOOK # 04 QUESTION # 1159

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 3315 tons of cargo on board with a KG of 27.0 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Main Deck	100
No. 1 Third Deck 60	
No. 2 Second Deck 90	
No. 3 Second Deck	120
No. 3 Third Deck 30	
No. 3 Tank Top	230
No. 4 Second Deck	120
No. 5 Upper Level Flat	110
No. 5 Third Deck	140
No. 5 Upper Reefer	90
No. 5 Third Deck Reefer	110
No. 7 Second Deck	240

- A. KG 26.2 feet
- B. KG 27.4 feet
- C. KG 28.6 feet
- D. KG 30.1 feet

k - C

BOOK # 04 QUESTION # 1181

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 4145 tons of cargo on board with a KG of 25.5 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Second Deck 80	
No. 2 Second Deck	100
No. 2 Third Deck 70	
No. 2 Tank Top	340
No. 3 Third Deck	120
No. 3 Tank Top	260
No. 4 Second Deck 70	
No. 4 Tank Top	220
No. 5 Second Deck	120
No. 5 Tank Top	380
No. 6 Third Deck	2 60
No. 7 Second Deck	340

- A. KG 25.0 feet

- B. KG 25.6 feet
- C. KG 26.2 feet
- D. KG 26.8 feet

k - A

BOOK # 04 QUESTION # 1313

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 3224 tons of cargo on board with a KG of 29.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Main Deck	80	
No. 2 Third Deck		220
No. 2 Tank Top		315
No. 3 Second Deck		305
No. 3 Third Deck		220
No. 3 Tank Top	4	80
No. 4 Second Deck	1	50
No. 4 Third Deck		260
No. 5 Upper Level Flat		120
No. 5 Tank Top		360
No. 6 Second Deck		320
No. 7 Second Deck		440

- A. KG 27.2 feet
- B. KG 27.8 feet
- C. KG 28.4 feet
- D. KG 29.0 feet

k - D

BOOK # 04 QUESTION # 1430

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 6422 tons of cargo on board with a KG of 26.6 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Third Deck	80	
No. 2 Second Deck		140
No. 2 Tank Top		360
No. 3 Second Deck		40
No. 3 Third Deck		220
No. 3 Tank Top		490
No. 4 Second Deck	80	
No. 5 Upper Level Flat		110
No. 5 Third Deck		140
No. 5 Tank Top		550
No. 5 Upper Reefer		85
No. 6 Third Deck		260

- A. KG 24.9 feet
- B. KG 25.5 feet
- C. KG 26.1 feet
- D. KG 28.9 feet

k - A

BOOK # 04 QUESTION # 1568

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 2464 tons of cargo on board with a KG of 27.3 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Second Deck	80	
No. 2 Second Deck		140
No. 2 Third Deck		240
No. 2 Tank Top		460
No. 4 Second Deck		180
No. 4 Third Deck		160
No. 4 Tank Top		70
No. 5 Second Deck		320
No. 5 Third Deck (Reefer)		180
No. 6 Second Deck		220
No. 6 Third Deck		360
No. 7 Second Deck		90

- A. KG 27.0 feet
- B. KG 27.8 feet
- C. KG 28.6 feet
- D. KG 29.8 feet

k - C

BOOK # 04 QUESTION # 1589

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 3284 tons of cargo on board with a KG of 26.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1 Second Deck	140
No. 2 Second Deck	80
No. 2 Third Deck	260
No. 3 Second Deck	180
No. 3 Third Deck	320
No. 3 Tank Top	480
No. 4 Second Deck	90
No. 4 Tank Top	90
No. 5 Second Deck	260
No. 5 Third Deck	380
No. 5 Tank Top	580
No. 6 Third Deck	360

- A. KG 25.0 feet
- B. KG 25.5 feet
- C. KG 26.1 feet
- D. KG 26.7 feet

k - B

BOOK # 04 QUESTION # 1917

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 4184 tons of cargo on board with a KG of 27.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1	Second Deck	140
No. 2	Second Deck	80
No. 2	Third Deck	180
No. 2	Tank Top	360
No. 3	Tank Top	380
No. 4	Second Deck	240
No. 4	Third Deck	280
No. 4	Tank Top	470
No. 5	Upper Level Flat	80
No. 5	Third Deck	260
No. 5	Tank Top	410
No. 6	Second Deck	360

- A. KG 25.8 feet
- B. KG 26.6 feet
- C. KG 27.2 feet
- D. KG 28.0 feet

k - A

BOOK # 04 QUESTION # 2113

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 2865 tons of cargo on board with a KG of 27.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 1	Third Deck	220
No. 2	Second Deck	140
No. 2	Third Deck	80
No. 3	Second Deck	240
No. 3	Third Deck	220
No. 3	Tank Top	280
No. 4	Second Deck	260
No. 4	Third Deck	180
No. 4	Tank Top	210
No. 5	Third Deck	340
No. 6	Second Deck	260

No. 7 Third Deck 240

- A. KG 26.2 feet
- B. KG 27.4 feet
- C. KG 28.5 feet
- D. KG 29.5 feet

k - C

BOOK # 04 QUESTION # 2298

The SS AMERICAN MARINER is ready to load the cargo listed below. There is already 3684 tons of cargo on board with a KG of 28.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.

No. 2 Second Deck 140
No. 2 Third Deck 220
No. 2 Tank Top 140
No. 3 Second Deck 180
No. 3 Third Deck 160
No. 3 Tank Deck 160
No. 4 Second Deck 110
No. 4 Tank Top 420
No. 5 Upper Level Flat 90
No. 5 Third Deck 170
No. 6 Second Deck 180
No. 6 Third Deck 310

- A. KG 27.0 feet
- B. KG 27.6 feet
- C. KG 28.2 feet
- D. KG 28.8 feet

k - B

BOOK # 04 QUESTION # 02982

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 15'-01". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL 48.2	DB 7 P 94.6
DB 1A CL 81.9	DB 7 S 94.6
DB 2 P 71.2	DT 1 CL 125.3
DB 2 S 71.2	DT 1A CL 257.6
DB 3 CL 227.6	DT 2 P 78.5
DB 3 P 55.6	DT 2 S 78.5
DB 3 S 55.6	DT 6 P 201.2
DB 4 CL 224.1	DT 6 S 201.2
DB 4 P 128.1	DT 7 P 128.8

DB 4 S	128.1	DT 7 S	128.8
DB 6 CL	242.3	DT 8 P	50.5
DT 8 S	50.5		

- A. 1.20 feet
- B. 0.92 foot
- C. 0.73 foot
- D. 0.61 foot

k - C

BOOK # 04 QUESTION # 03038

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 18'-06", AFT 20'-06". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2	DB 6CL	242.3
DB 1A CL	81.9	DB 7 P	94.6
DB 2 P	71.2	DB 7 S	94.6
DB 2 S	71.2	DT 6 P	201.2
DB 3 CL	227.6	DT 6 S	201.2
DB 3 P	55.6	DT 7 P	128.8
DB 3 S	55.6	DT 7 S	128.8
DB 4 CL	200.0		
DB 4 P	128.1		
DB 4 S	128.1		
DB 5 CL	180.0		
DB 5 P	178.0		
DB 5 S	180.0		

- A. 1.10 feet
- B. 0.91 foot
- C. 0.72 foot
- D. 0.68 foot

k - B

BOOK # 04 QUESTION # 03076

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-06", AFT 14'-06". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 3 CL	180.0	DT 2 P	80.0
DB 3 P	55.6	DT 2 S	80.0
DB 3 S	55.6	DT 3 P	86.1
DB 4 CL	224.1	DT 3 S	86.1
DB 4 P	128.1	DT 6 P	201.2
DB 4 S	128.1	DT 6 S	201.2
DB 5 CL	180.0		
DB 5 P	178.0		
DB 5 S	180.0		

- A. 0.87 foot
- B. 0.98 foot
- C. 1.14 feet
- D. 1.25 feet

k - C

BOOK # 04 QUESTION # 02912

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 12'-06", AFT 15'-06". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL 48.2	DB 6 CL 242.3
DB 1A CL 81.9	DB 7 P 94.6
DB 2 P 71.2	DB 7 S 94.6
DB 2 S 71.2	DT 1 CL 125.3
DB 3 CL 227.6	DT 1A CL 257.6
DB 3 P 55.6	DT 2 P 80.0
DB 3 S 55.6	DT 2 S 80.0
DB 4 CL 224.1	DT 6 P 201.2
DB 4 P 128.1	DT 6 S 201.2
DB 4 S 128.1	DT 7 P 128.8
DT 7 S 128.8	

- A. 0.68 foot
- B. 0.85 foot
- C. 0.97 foot
- D. 1.30 feet

k - A

BOOK # 04 QUESTION # 02868

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-06", AFT 17'-00". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL 48.2	DB 7 P 94.6
DB 1A CL 81.9	DB 7 S 94.6
DB 2 P 71.2	DT 1A CL 150.0
DB 2 S 71.2	DT 2 P 50.0
DB 3 CL 227.6	DT 2 S 50.0
DB 3 P 55.6	DT 6 P 201.2
DB 3 S 55.6	DT 6 S 201.2
DB 4 CL 224.1	
DB 4 P 128.1	
DB 4 S 128.1	
DB 5 CL 180.0	
DB 6 CL 242.3	

- A. 0.52 foot
- B. 0.70 foot
- C. 0.84 foot
- D. 1.10 feet

k - C

BOOK # 04 QUESTION # 05462

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 13'-10", AFT 16'-04". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	40.0	DT 6 P	201.2
DB 2 P	65.0	DT 6 S	201.2
DB 2 S	65.0	DT 7 P	110.0
DB 3 CL	227.6	DT 7 S	110.0
DB 4 CL	224.1		
DB 4 P	128.1		
DB 4 S	128.1		
DB 5 CL	196.2		
DB 5 P	170.0		
DB 5 S	170.0		
DB 6 CL	242.3		

- A. 1.30 feet
- B. 1.17 foot
- C. 1.01 foot
- D. 0.91 foot

k - C

BOOK # 04 QUESTION # 05924

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 13'-10", AFT 16'-04". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	40.0	DT 6 P	201.2
DB 2 P	65.0	DT 6 S	201.2
DB 2 S	65.0	DT 7 P	128.8
DB 3 CL	227.6	DT 7 S	128.8
DB 4 CL	224.1		
DB 4 P	128.1		
DB 4 S	128.1		
DB 5 CL	196.2		
DB 5 P	178.0		
DB 5 S	180.0		
DB 6 CL	242.3		

- A. 1.30 feet
- B. 1.07 foot
- C. 0.96 foot

D. 0.73 foot

k - D

BOOK # 04 QUESTION # 04312

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 14'-07". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL 48.2	DB 7 P 94.6
DB 1A CL 60.0	DB 7 S 94.6
DB 2 P 71.2	DT 1A CL 251.6
DB 2 S 71.2	DT 2 P 100.7
DB 4 CL 224.1	DT 2 S 100.7
DB 4 P 105.0	DT 3 P 86.1
DB 4 S 105.0	DT 3 S 86.1
DB 5 CL 196.2	DT 6 P 165.0
DB 6 CL 200.0	DT 6 S 165.0
DB 6 P 87.0	DT 7 P 128.8
DB 6 S 87.0	DT 7 S 128.8

A. 1.30 feet

B. 1.17 foot

C. 1.06 foot

D. 0.91 foot

k - A

BOOK # 04 QUESTION # 04746

. The SS AMERICAN MARINER is ready to bunker with drafts of FWD 12'-07", AFT 16'-01". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL 48.2	DT 6 P 201.2
DB 2 P 65.0	DT 6 S 201.2
DB 2 S 65.0	
DB 3 CL 227.6	
DB 4 CL 224.1	
DB 5 CL 196.2	
DB 5 P 178.0	
DB 5 S 180.0	
DB 6 CL 220.0	
DB 7 P 90.0	
DB 7 S 90.0	

A. 1.30 feet

B. 1.07 foot

C. 0.96 foot

D. 0.82 foot

k - B

BOOK # 04 QUESTION # 04812

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 21'-04", AFT 26'-04". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 3 P	55.6
DB 3 S	55.6
DB 4 CL	224.1
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	196.2
DB 6 CL	242.3
DB 6 P	87.0
DB 6 S	87.0
DB 7 P	66.2
DB 7 S	58.4
DT 1	84.2
DT 1A CL	235.6
DT 3 P	86.1
DT 3 S	86.1
DT 6 P	201.2
DT 6 S	201.2
DT 7 P	128.8
DT 7 S	128.8

- A. 0.54 foot
- B. 0.62 foot
- C. 0.79 foot
- D. 0.84 foot

k - A

BOOK # 04 QUESTION # 05068

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 19'-00", AFT 24'-00". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 4 CL	224.1
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	180.0
DB 5 P	178.0

DB 5 S	180.0
DB 6 CL	212.0
DB 6 P	87.0
DB 6 S	87.0
DB 7 P	94.6
DB 7 S	94.6
DT 2 P	100.7
DT 2 S	100.7
DT 3 P	86.1
DT 3 S	86.1
DT 6 P	201.2
DT 6 S	201.2
DT 7 P	128.8
DT 7 S	128.8

- A. 0.62 foot
- B. 0.79 foot
- C. 0.84 foot
- D. 0.99 foot

k - C

BOOK # 04 QUESTION # 05098

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 20'-04", AFT 23'-06". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2	DB 7 P	94.6
DB 1A CL	81.9	DB 7 S	94.6
DB 2 P	71.2	DT 1 CL	125.3
DB 2 S	71.2	DT 1A CL	235.6
DB 3 CL	214.4	DT 2 P	100.7
DB 4 CL	224.1	DT 2 S	100.7
DB 4 P	128.1	DT 3 P	86.1
DB 4 S	128.1	DT 3 S	86.1
DB 6 CL	212.0	DT 6 P	201.2
DB 6 P	87.0	DT 6 S	201.2
DB 6 S	87.0	DT 7 P	128.8
DT 7 S	128.8		

- A. 0.62 foot
- B. 0.79 foot
- C. 0.84 foot
- D. 0.99 foot

k - B

BOOK # 04 QUESTION # 05124

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 18'-08". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL 48.2

DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 3 P	55.6
DB 3 S	55.6
DB 4 CL	224.1
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	170.4
DB 6 CL	212.0
DB 7 P	94.6
DB 7 S	94.6
DT 1 CL	125.3
DT 1A CL	235.6
DT 3 P	86.1
DT 3 S	86.1
DT 6 P	201.2
DT 6 S	201.2
DT 7 P	128.8
DT 7 S	128.8

- A. 1.05 feet
- B. 1.15 feet
- C. 1.25 feet
- D. 1.31 feet

k - A

BOOK # 04 QUESTION # 05234

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 15'-05", AFT 21'-03". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 3 P	55.6
DB 3 S	55.6
DB 4 CL	208.6
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	180.4
DB 6 CL	212.0
DB 6 P	87.0
DB 6 S	87.0
DB 7 P	94.6
DB 7 S	94.6
DT 1 CL	125.3
DT 1A CL	235.6
DT 3 P	86.1
DT 3 S	86.1
DT 6 P	201.2

DT 6 S 201.2
DT 7 P 128.8
DT 7 S 128.8

- A. 1.05 feet
- B. 1.15 feet
- C. 1.25 feet
- D. 1.31 feet

k - B

BOOK # 04 QUESTION # 05302

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 17'-05", AFT 19'-07". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL 48.2
DB 1A CL 81.9
DB 2 P 71.2
DB 2 S 71.2
DB 3 CL 227.6
DB 3 P 55.6
DB 3 S 55.6
DB 4 CL 208.6
DB 4 P 128.1
DB 4 S 128.1
DB 5 CL 196.2
DB 6 CL 212.0
DB 6 P 87.0
DB 6 S 87.0
DB 7 P 94.6
DB 7 S 94.6
DT 1 CL 125.3
DT 1A CL 235.6
DT 3 P 86.1
DT 3 S 86.1
DT 6 P 201.2
DT 6 S 201.2
DT 7 P 128.8
DT 7 S 128.8

- A. 0.62 foot
- B. 0.79 foot
- C. 0.84 foot
- D. 0.99 foot

k - D

BOOK # 04 QUESTION # 05314

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 18'-08". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 3 P	55.6
DB 3 S	55.6
DB 4 CL	208.6
DB 4 P	128.1
DB 4 S	128.1
DB 5 CL	170.4
DB 6 CL	212.0
DB 7 P	94.6
DB 7 S	94.6
DT 1 CL	125.3
DT 1A CL	235.6
DT 3 P	86.1
DT 3 S	86.1
DT 6 P	201.2
DT 6 S	201.2
DT 7 P	128.8
DT 7 S	128.8

- A. 1.05 feet
- B. 1.15 feet
- C. 1.25 feet
- D. 1.31 feet

k - C

BOOK # 04 QUESTION # 05412

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 21'-04", AFT 26'-04". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	227.6
DB 3 P	55.6
DB 3 S	55.6
DB 4 CL	224.1
DB 4 P	87.0
DB 4 S	87.0
DB 5 CL	196.2
DB 6 CL	242.3
DB 6 P	87.0
DB 6 S	87.0
DB 7 P	66.2
DB 7 S	58.4
DT 1 CL	125.3
DT 1A CL	235.6
DT 3 P	86.1
DT 3 S	86.1

DT 6 P	201.2
DT 6 S	201.2
DT 7 P	128.8
DT 7 S	128.8

- A. 0.62 foot
- B. 0.79 foot
- C. 0.84 foot
- D. 0.99 foot

k - A

BOOK # 04 QUESTION # 05449

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 17'-06", AFT 20'-04". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2
DB 1A CL	81.9
DB 2 P	71.2
DB 2 S	71.2
DB 3 CL	140.6
DB 3 P	55.6
DB 3 S	55.6
DB 4 CL	224.1
DB 4 P	87.0
DB 4 S	87.0
DB 5 CL	170.4
DB 6 CL	212.0
DB 7 P	44.6
DB 7 S	20.8
DT 1 CL	125.3
DT 1A CL	235.6
DT 3 P	86.1
DT 3 S	86.1
DT 6 P	201.2
DT 6 S	201.2
DT 7 P	128.8
DT 7 S	128.8

- A. 1.05 feet
- B. 1.15 feet
- C. 1.25 feet
- D. 1.31 feet

k - D

BOOK # 04 QUESTION # 05518

The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 17'-06". After all bunkers are on board, soundings indicate the tonnages below. Use the white pages of the Stability Data Reference Book to determine the free surface correction.

DB 1 CL	48.2	DB 7 P	44.6
DB 1A CL	81.9	DB 7 S	94.6
DB 2 P	71.2	DT 1 CL	125.3
DB 2 S	71.2	DT 1A CL	235.6
DB 3 CL	140.6	DT 3 P	86.1
DB 3 P	55.6	DT 3 S	86.1
DB 3 S	55.6	DT 6 P	201.2
DB 4 CL	224.1	DT 6 S	201.2
DB 4 P	087.0	DT 7 P	128.8
DB 4 S	087.0	DT 7 S	128.8
DB 5 CL	170.4		
DB 6 CL	212.0		

- A. 1.15 feet
- B. 1.25 feet
- C. 1.31 feet
- D. 1.48 feet

k - D

BOOK # 04 QUESTION # 02608

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	3670	7.5	
FRESH WATER	140	21.0	
DRY CARGO	5965	27.0	
REEFER CARGO	265	29.2	
DECK CARGO	115	55.0	
TOTAL FREE SURFACE MOMENTS		20219	
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 6.3 ft
- B. Available GM 5.7 ft
- C. Available GM 5.3 ft
- D. Available GM 4.8 ft

k - D

BOOK # 04 QUESTION # 02486

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	

LUBE OIL	13	25.8	
F.O. & SALT WATER	3710	7.5	
FRESH WATER	115	21.0	
DRY CARGO	7815	27.0	
REEFER CARGO	175	29.2	
DECK CARGO	120	55.0	
TOTAL FREE SURFACE MOMENTS			17706
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 5.0 ft
- B. Available GM 5.4 ft
- C. Available GM 6.1 ft
- D. Available GM 6.8 ft

Key - A

BOOK # 04 QUESTION # 02329

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2608	7.5	
FRESH WATER	80	21.0	
DRY CARGO	5469	27.0	
REEFER CARGO	225	29.2	
DECK CARGO	113	55.0	
TOTAL FREE SURFACE MOMENTS			15585
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 3.2 ft
- B. Available GM 3.9 ft
- C. Available GM 4.8 ft
- D. Available GM 5.3 ft

k - B

BOOK # 04 QUESTION # 02256

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER		1906	7.5
FRESH WATER	140	21.0	

DRY CARGO	4286	27.0
REEFER CARGO	125	29.2
DECK CARGO	140	55.0

TOTAL FREE SURFACE MOMENTS 11468
FOR ALL LIQUIDS ON BOARD

- A. Available GM 6.8 ft
- B. Available GM 5.4 ft
- C. Available GM 4.1 ft
- D. Available GM 3.6 ft

K - D

BOOK # 04 QUESTION # 01500

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG
CREW and STORES	50	43.7
LUBE OIL	13	25.8
F.O. & SALT WATER	2824	7.5
FRESH WATER	160	21.0
DRY CARGO	7190	27.0
REEFER CARGO	170	29.2
DECK CARGO	155	55.0

TOTAL FREE SURFACE MOMENTS 15138
FOR ALL LIQUIDS ON BOARD

- A. Available GM 6.9 ft
- B. Available GM 5.3 ft
- C. Available GM 4.1 ft
- D. Available GM 3.8 ft

K - C

BOOK # 04 QUESTION # 03141

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG
CREW and STORES	50	43.7
LUBE OIL	13	25.8
F.O. & SALT WATER	2608	8.5
FRESH WATER	80	20.0
DRY CARGO	5469	25.5
REEFER CARGO	225	28.2
DECK CARGO	113	55.0

TOTAL FREE SURFACE MOMENTS 15585
FOR ALL LIQUIDS ON BOARD

- A. Available GM 4.81 ft
- B. Available GM 4.69 ft
- C. Available GM 4.60 ft
- D. Available GM 4.28 ft

k - D

BOOK # 04 QUESTION # 03311

. The SS AMERICAN MARINER is ready to sail with the loading indicated below.
Use the white pages of the Stability Data Reference Book to determine the
available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2608	8.5	
FRESH WATER	80	20.0	
DRY CARGO	5469	25.5	
REEFER CARGO	225	28.2	
DECK CARGO	113	55.0	
TOTAL FREE SURFACE MOMENTS			20454
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 3.51 ft
- B. Available GM 3.60 ft
- C. Available GM 3.98 ft
- D. Available GM 4.28 ft

k - C

BOOK # 04 QUESTION # 02923

. The SS AMERICAN MARINER is ready to sail with the loading indicated below.
Use the white pages of the Stability Data Reference Book to determine the
available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2608	8.5	
FRESH WATER	80	20.0	
DRY CARGO	5469	25.5	
REEFER CARGO	225	28.2	
DECK CARGO	113	55.0	
TOTAL FREE SURFACE MOMENTS			17531
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 4.01 ft
- B. Available GM 4.16 ft
- C. Available GM 4.69 ft
- D. Available GM 4.81 ft

k - B

BOOK # 04 QUESTION # 03010

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2608	8.5	
FRESH WATER	80	20.0	
DRY CARGO	5469	25.5	
REEFER CARGO	225	28.2	
DECK CARGO	113	55.0	
TOTAL FREE SURFACE MOMENTS			18993
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 4.07 ft
- B. Available GM 4.60 ft
- C. Available GM 4.69 ft
- D. Available GM 4.81 ft

k - A

BOOK # 04 QUESTION # 03902

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	1906	7.5	
FRESH WATER	160	21.0	
DRY CARGO	7815	27.0	
REEFER CARGO	125	29.2	
DECK CARGO	155	55.0	
TOTAL FREE SURFACE MOMENTS			17899
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 3.0 ft

- B. Available GM 3.7 ft
- C. Available GM 4.0 ft
- D. Available GM 4.2 ft

k - A

BOOK # 04 QUESTION # 03547

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2608	7.5	
FRESH WATER	80	21.0	
DRY CARGO	5469	27.0	
REEFER CARGO	225	29.2	
DECK CARGO	113	55.0	
TOTAL FREE SURFACE MOMENTS			22273
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 3.5 ft
- B. Available GM 3.9 ft
- C. Available GM 4.3 ft
- D. Available GM 4.8 ft

k - A

BOOK # 04 QUESTION # 02774

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	1906	7.5	
FRESH WATER	140	21.0	
DRY CARGO	4826	27.3	
REEFER CARGO	125	29.2	
DECK CARGO	140	55.0	
TOTAL FREE SURFACE MOMENTS			14168
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 3.8 ft
- B. Available GM 3.5 ft
- C. Available GM 3.2 ft
- D. Available GM 3.0 ft

k - C

BOOK # 04 QUESTION # 02707

. The SS AMERICAN MARINER is ready to sail with the load indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2024	7.5	
FRESH WATER	160	21.0	
DRY CARGO	7090	27.4	
REEFER CARGO	170	29.2	
DECK CARGO	155	55.0	
TOTAL FREE SURFACE MOMENTS			15538
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 3.8 ft
- B. Available GM 3.5 ft
- C. Available GM 3.2 ft
- D. Available GM 3.0 ft

k - D

BOOK # 04 QUESTION # 02659

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2608	7.5	
FRESH WATER	80	21.0	
DRY CARGO	5469	25.2	
REEFER CARGO	225	29.2	
DECK CARGO	113	55.0	
TOTAL FREE SURFACE MOMENTS			18585
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 4.3 ft
- B. Available GM 4.1 ft
- C. Available GM 3.9 ft
- D. Available GM 3.6 ft

k - A

BOOK # 04 QUESTION # 02526

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2710	7.5	
FRESH WATER	115	21.0	
DRY CARGO	7815	27.0	
REEFER CARGO	175	29.2	
DECK CARGO	120	55.0	
TOTAL FREE SURFACE MOMENTS			17706
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 4.2 ft
- B. Available GM 3.9 ft
- C. Available GM 3.7 ft
- D. Available GM 3.5 ft

k - B

BOOK # 04 QUESTION # 02525

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2824	7.5	
FRESH WATER	80	21.0	
DRY CARGO	4286	27.0	
REEFER CARGO	225	29.2	
DECK CARGO	155	55.0	
TOTAL FREE SURFACE MOMENTS			17604
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 5.26 ft
- B. Available GM 4.24 ft
- C. Available GM 4.11 ft
- D. Available GM 4.01 ft

k - C

BOOK # 04 QUESTION # 02341

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2824	7.5	
FRESH WATER	80	21.0	
DRY CARGO	4286	27.0	
REEFER CARGO	225	29.2	
DECK CARGO	155	55.0	
TOTAL FREE SURFACE MOMENTS			15585
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 5.26 ft
- B. Available GM 4.24 ft
- C. Available GM 4.11 ft
- D. Available GM 4.01 ft

k - B

BOOK # 04 QUESTION # 02302

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	1906	7.5	
FRESH WATER	140	21.0	
DRY CARGO	4286	27.0	
REEFER CARGO	125	29.2	
DECK CARGO	140	55.0	
TOTAL FREE SURFACE MOMENTS			4157
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 6.8 ft
- B. Available GM 5.4 ft
- C. Available GM 4.1 ft
- D. Available GM 3.6 ft

k - C

BOOK # 04 QUESTION # 02151

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2824	7.5	
FRESH WATER	160	21.0	
DRY CARGO	7190	27.0	
REEFER CARGO	170	29.2	
DECK CARGO	155	55.0	
TOTAL FREE SURFACE MOMENTS			20972
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 6.9 ft
- B. Available GM 5.3 ft
- C. Available GM 4.1 ft
- D. Available GM 3.8 ft

k - D

BOOK # 04 QUESTION # 01866

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	3710	7.5	
FRESH WATER	115	21.0	
DRY CARGO	7815	27.0	
REEFER CARGO	175	29.2	
DECK CARGO	120	55.0	
TOTAL FREE SURFACE MOMENTS			9640
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 5.0 ft
- B. Available GM 5.4 ft
- C. Available GM 6.1 ft
- D. Available GM 6.8 ft

k - B

BOOK # 04 QUESTION # 05574

The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG
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CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	1664	7.5	
FRESH WATER	160	21.0	
DRY CARGO	7190	27.0	
REEFER CARGO	170	29.2	
DECK CARGO	155	55.0	
TOTAL FREE SURFACE MOMENTS			15138
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 2.8 ft
- B. Available GM 3.2 ft
- C. Available GM 3.5 ft
- D. Available GM 3.8 ft

k - A

BOOK # 04 QUESTION # 05604

The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	1870	7.5	
FRESH WATER	210	21.0	
DRY CARGO	4882	27.0	
REEFER CARGO	170	29.2	
DECK CARGO	452	55.0	
TOTAL FREE SURFACE MOMENTS			17555
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 2.4 ft
- B. Available GM 3.2 ft
- C. Available GM 3.5 ft
- D. Available GM 3.8 ft

k - A

BOOK # 04 QUESTION # 05702

. The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2335	7.5	
FRESH WATER	190	21.0	
DRY CARGO	5440	27.0	

REEFER CARGO	225	29.2
DECK CARGO	377	55.0

TOTAL FREE SURFACE MOMENTS 15322
FOR ALL LIQUIDS ON BOARD

- A. Available GM 2.8 ft
- B. Available GM 3.2 ft
- C. Available GM 3.5 ft
- D. Available GM 3.8 ft

k - B

BOOK # 04 QUESTION # 05752

. The SS AMERICAN MARINER is ready to sail with the loading indicated below.
Use the white pages of the Stability Data Reference Book to determine the
available GM.

ITEM	TONS	KG
CREW and STORES	50	43.7
LUBE OIL	13	25.8
F.O. & SALT WATER	2685	7.5
FRESH WATER	190	21.0
DRY CARGO	5440	27.0
REEFER CARGO	225	29.2
DECK CARGO	365	55.0

TOTAL FREE SURFACE MOMENTS 16854
FOR ALL LIQUIDS ON BOARD

- A. Available GM 2.8 ft
- B. Available GM 3.2 ft
- C. Available GM 3.5 ft
- D. Available GM 3.8 ft

k - C

BOOK # 04 QUESTION # 05786

The SS AMERICAN MARINER is ready to sail with the loading indicated below.
Use the white pages of the Stability Data Reference Book to determine the
available GM.

ITEM	TONS	KG
CREW and STORES	50	43.7
LUBE OIL	13	25.8
F.O. & SALT WATER	2685	7.5
FRESH WATER	190	21.0
DRY CARGO	5440	27.0
REEFER CARGO	225	29.2
DECK CARGO	185	55.0

TOTAL FREE SURFACE MOMENTS 17324
FOR ALL LIQUIDS ON BOARD

- A. Available GM 2.8 ft
- B. Available GM 3.2 ft
- C. Available GM 3.5 ft
- D. Available GM 3.8 ft

k - D

BOOK # 04 QUESTION # 05864

The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2246	7.5	
FRESH WATER	190	21.0	
DRY CARGO	3556	27.0	
REEFER CARGO	180	29.2	
DECK CARGO	120	55.0	
TOTAL FREE SURFACE MOMENTS			12366
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 4.1 ft
- B. Available GM 4.3 ft
- C. Available GM 4.7 ft
- D. Available GM 5.1 ft

k - A

BOOK # 04 QUESTION # 05936

The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2145	6.7	
FRESH WATER	190	21.0	
DRY CARGO	3710	26.4	
REEFER CARGO	180	29.2	
DECK CARGO	120	55.0	
TOTAL FREE SURFACE MOMENTS			12088
FOR ALL LIQUIDS ON BOARD			

- A. Available GM 4.1 ft
- B. Available GM 4.3 ft
- C. Available GM 4.7 ft

D. Available GM 5.1 ft

k - B

BOOK # 04 QUESTION # 06004

The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2045	6.7	
FRESH WATER	240	21.0	
DRY CARGO	3112	25.8	
REEFER CARGO	90	29.2	
DECK CARGO	80	55.0	
TOTAL FREE SURFACE MOMENTS			11542
FOR ALL LIQUIDS ON BOARD			

A. Available GM 4.1 ft

B. Available GM 4.3 ft

C. Available GM 4.7 ft

D. Available GM 5.1 ft

k - C

BOOK # 04 QUESTION # 06074

The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG	
CREW and STORES	50	43.7	
LUBE OIL	13	25.8	
F.O. & SALT WATER	2845	7.3	
FRESH WATER	180	21.0	
DRY CARGO	3188	25.3	
REEFER CARGO	40	29.2	
DECK CARGO	257	55.0	
TOTAL FREE SURFACE MOMENTS			11980
FOR ALL LIQUIDS ON BOARD			

A. Available GM 4.1 ft

B. Available GM 4.3 ft

C. Available GM 4.7 ft

D. Available GM 5.1 ft

k - D

BOOK # 04 QUESTION # 06106

The SS AMERICAN MARINER is ready to sail with the loading indicated below. Use the white pages of the Stability Data Reference Book to determine the available GM.

ITEM	TONS	KG
CREW and STORES	50	43.7
LUBE OIL	13	25.8
F.O. & SALT WATER	2845	7.3
FRESH WATER	180	21.0
DRY CARGO	3188	25.3
REEFER CARGO	40	29.2
DECK CARGO	60	55.0
TOTAL FREE SURFACE MOMENTS		12600
FOR ALL LIQUIDS ON BOARD		

- A. Available GM 4.3 ft
- B. Available GM 4.7 ft
- C. Available GM 5.1 ft
- D. Available GM 5.5 ft

k - D

BOOK # 04 QUESTION # 03529

. The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	8240 Tons
Fuel oil	3200 Tons
Fresh water	240 Tons
Ballast	0 Tons

- A. 2.15 feet
- B. 2.05 feet
- C. 1.95 feet
- D. 1.75 feet

k - B

BOOK # 04 QUESTION # 03636

. The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
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Lube oil	13 Tons
Cargo	2105 Tons
Fuel oil	1860 Tons
Fresh water	108 Tons
Ballast	0 Tons

- A. 3.15 feet
- B. 3.05 feet
- C. 2.90 feet
- D. 2.80 feet

k - B

BOOK # 04 QUESTION # 03792

. The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	3036 Tons
Fuel oil	2636 Tons
Fresh water	154 Tons
Ballast	204 Tons

- A. 3.10 feet
- B. 2.45 feet
- C. 2.00 feet
- D. 1.50 feet

k - B

BOOK # 04 QUESTION # 03996

. The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	4623 Tons
Fuel oil	1800 Tons
Fresh water	108 Tons
Ballast	130 Tons

- A. 2.85 feet
- B. 2.65 feet
- C. 2.36 feet

D. 2.15 feet

k - C

BOOK # 04 QUESTION # 04074

. The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	7212 Tons
Fuel oil	2485 Tons
Fresh water	98 Tons
Ballast	0 Tons

- A. 2.20 feet
- B. 2.00 feet
- C. 1.80 feet
- D. 1.65 feet

k - C

BOOK # 04 QUESTION # 01009

. The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	8400 Tons
Fuel oil	3015 Tons
Fresh water	200 Tons
Ballast	450 Tons

- A. 1.80 feet
- B. 1.89 feet
- C. 1.98 feet
- D. 2.05 feet

k - C

BOOK # 04 QUESTION # 01090

. The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	8040 Tons
Fuel oil	3115 Tons
Fresh water	200 Tons

- A. 1.80 feet
- B. 1.89 feet
- C. 1.98 feet
- D. 2.05 feet

k - D

BOOK # 04 QUESTION # 01091

. The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	3390 Tons
Fuel oil	2580 Tons
Fresh water	175 Tons
Ballast	345 Tons

- A. 2.49 feet
- B. 2.38 feet
- C. 2.27 feet
- D. 2.05 feet

k - B

BOOK # 04 QUESTION # 01291

. The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	5390 Tons
Fuel oil	2890 Tons
Fresh water	275 Tons
Ballast	945 Tons

- A. 1.82 feet
- B. 1.96 feet
- C. 2.05 feet

D. 2.17 feet

k - A

BOOK # 04 QUESTION # 00591

The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	2105 Tons
Fuel oil	1035 Tons
Fresh water	150 Tons
Ballast	100 Tons

- A. 2.82 feet
- B. 2.97 feet
- C. 3.15 feet
- D. 3.24 feet

k - D

BOOK # 04 QUESTION # 01049

The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	1853 Tons
Fuel oil	1324 Tons
Fresh water	130 Tons
Ballast	370 Tons

- A. 2.62 feet
- B. 2.82 feet
- C. 2.97 feet
- D. 3.15 feet

k - D

BOOK # 04 QUESTION # 01171

The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	2345 Tons
Fuel oil	1324 Tons
Fresh water	170 Tons
Ballast	400 Tons

- A. 2.62 feet
- B. 2.82 feet
- C. 2.97 feet
- D. 3.15 feet

k - C

BOOK # 04 QUESTION # 01189

The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	2860 Tons
Fuel oil	1324 Tons
Fresh water	170 Tons
Ballast	400 Tons

- A. 2.62 feet
- B. 2.82 feet
- C. 2.97 feet
- D. 3.15 feet

k - B

BOOK # 04 QUESTION # 01293

. The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	3035 Tons
Fuel oil	1775 Tons
Fresh water	270 Tons
Ballast	440 Tons

- A. 2.62 feet
- B. 2.82 feet

- C. 2.97 feet
- D. 3.15 feet

k - A

BOOK # 04 QUESTION # 01409

. The SS AMERICAN MARINER has the following drafts: FWD 08'-04", AFT 13'-08". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	3450 Tons
Fuel oil	1970 Tons
Fresh water	220 Tons
Ballast	440 Tons

- A. 1.91 feet
- B. 2.09 feet
- C. 2.21 feet
- D. 2.48 feet

k - D

BOOK # 04 QUESTION # 01542

. The SS AMERICAN MARINER has the following drafts: FWD 08'-04", AFT 13'-08". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	4780 Tons
Fuel oil	1970 Tons
Fresh water	110 Tons
Ballast	390 Tons

- A. 1.91 feet
- B. 2.09 feet
- C. 2.21 feet
- D. 2.48 feet

k - C

BOOK # 04 QUESTION # 01606

. The SS AMERICAN MARINER has the following drafts: FWD 08'-04", AFT 13'-08". Upon completion of loading and bunkering the items listed below will be on

board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	5455 Tons
Fuel oil	1970 Tons
Fresh water	100 Tons
Ballast	390 Tons

- A. 1.91 feet
- B. 2.09 feet
- C. 2.21 feet
- D. 2.48 feet

k - B

BOOK # 04 QUESTION # 01666

. The SS AMERICAN MARINER has the following drafts: FWD 08'-04", AFT 13'-08". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	5880 Tons
Fuel oil	2210 Tons
Fresh water	200 Tons
Ballast	600 Tons

- A. 1.91 feet
- B. 2.09 feet
- C. 2.21 feet
- D. 2.48 feet

k - A

BOOK # 04 QUESTION # 01913

. The SS AMERICAN MARINER has the following drafts: FWD 08'-04", AFT 15'-08". Upon completion of loading and bunkering the items listed below will be on board. Use the white pages of the Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.

Stores	50 Tons
Lube oil	13 Tons
Cargo	7325 Tons
Fuel oil	2210 Tons
Fresh water	200 Tons
Ballast	100 Tons

- A. 1.77 feet
- B. 1.91 feet
- C. 2.09 feet
- D. 2.21 feet

k - A

BOOK # 04 QUESTION # 03668

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.

Deck cargo 300 Tons
Upper tween deck layer 3000 Tons
Lower tween deck layer 1500 Tons
Hold layer 2500 Tons

- A. 920 tons
- B. 1120 tons
- C. 1245 tons
- D. 1545 tons

k - D

BOOK # 04 QUESTION # 03622

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.

Deck cargo 180 Tons
Upper tween deck layer 3000 Tons
Lower tween deck layer 3500 Tons
Hold layer 2500 Tons

- A. 451 tons
- B. 1126 tons
- C. 1451 tons
- D. 1726 tons

k - B

BOOK # 04 QUESTION # 03576

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.

Deck cargo 300 Tons

Upper tween deck layer 1800 Tons
Lower tween deck layer 2900 Tons
Hold layer 3100 Tons

- A. 1220 tons
- B. 840 tons
- C. 460 tons
- D. 344 tons

k - D

BOOK # 04 QUESTION # 03424

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.

Deck cargo 300 Tons
Upper tween deck layer 2700 Tons
Lower tween deck layer 3650 Tons
Hold layer 2650 Tons

- A. 1920 tons
- B. 1280 tons
- C. 895 tons
- D. 720 tons

k - C

BOOK # 04 QUESTION # 03392

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.

Deck cargo 250 Tons
Upper tween deck layer 2800 Tons
Lower tween deck layer 3200 Tons
Hold layer 3200 Tons

- A. 595 tons
- B. 870 tons
- C. 1200 tons
- D. 1350 tons

k - A

BOOK # 04 QUESTION # 03364

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine

the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.

Deck cargo 180 Tons
Upper tween deck layer 2800 Tons
Lower tween deck layer 2800 Tons
Hold layer 2300 Tons

- A. 444 tons
- B. 644 tons
- C. 1044 tons
- D. 1263 tons

k - D

BOOK # 04 QUESTION # 00064

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo 170 Tons
Upper tween deck layer 1800 Tons
Lower tween deck layer 2000 Tons
Hold layer 3200 Tons

- A. 338 tons
- B. 309 tons
- C. 281 tons
- D. 263 tons

k - D

BOOK # 04 QUESTION # 00372

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo 200 Tons
Upper tween deck layer 2800 Tons
Lower tween deck layer 1000 Tons
Hold layer 4300 Tons

- A. 189 tons
- B. 174 tons
- C. 158 tons
- D. No loading required

k - C

BOOK # 04 QUESTION # 00501

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo	200 Tons
Upper tween deck layer	2800 Tons
Lower tween deck layer	3000 Tons
Hold layer	2300 Tons

- A. 1292 tons
- B. 1248 tons
- C. 1211 tons
- D. 1172 tons

k - B

BOOK # 04 QUESTION # 00511

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo	170 Tons
Upper tween deck layer	2800 Tons
Lower tween deck layer	2000 Tons
Hold layer	3200 Tons

- A. 696 tons
- B. 520 tons
- C. 473 tons
- D. 444 tons

k - A

BOOK # 04 QUESTION # 02047

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo	350 Tons
Upper tween deck layer	1700 Tons
Lower tween deck layer	2900 Tons
Hold layer	3400 Tons

- A. 280 tons
- B. 395 tons
- C. 750 tons
- D. 990 tons

k - A

BOOK # 04 QUESTION # 02098

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo 350 Tons
Upper tween deck layer 1780 Tons
Lower tween deck layer 1990 Tons
Hold layer 3230 Tons

- A. 395 tons
- B. 530 tons
- C. 750 tons
- D. 990 tons

k - A

BOOK # 04 QUESTION # 02135

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo 190 Tons
Upper tween deck layer 1740 Tons
Lower tween deck layer 1420 Tons
Hold layer 2840 Tons

- A. 395 tons
- B. 530 tons
- C. 750 tons
- D. 990 tons

k - B

BOOK # 04 QUESTION # 02220

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo 220 Tons
Upper tween deck layer 1950 Tons
Lower tween deck layer 1300 Tons
Hold layer 2750 Tons

- A. 395 tons
- B. 530 tons
- C. 750 tons
- D. 990 tons

k - C

BOOK # 04 QUESTION # 02325

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo 250 Tons
Upper tween deck layer 1520 Tons
Lower tween deck layer 1410 Tons
Hold layer 2070 Tons

- A. 395 tons
- B. 530 tons
- C. 750 tons
- D. 990 tons

k - D

BOOK # 04 QUESTION # 02415

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo 320 Tons
Upper tween deck layer 1320 Tons
Lower tween deck layer 1010 Tons
Hold layer 1670 Tons

- A. 1171.5 tons
- B. 1311.0 tons
- C. 1503.0 tons
- D. 1710.5 tons

k - A

BOOK # 04 QUESTION # 02493

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine

the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo	280 Tons
Upper tween deck layer	1320 Tons
Lower tween deck layer	1260 Tons
Hold layer	1420 Tons

- A. 1171.5 tons
- B. 1311.0 tons
- C. 1503.0 tons
- D. 1710.5 tons

k - B

BOOK # 04 QUESTION # 02527

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo	210 Tons
Upper tween deck layer	1220 Tons
Lower tween deck layer	910 Tons
Hold layer	870 Tons

- A. 1171.5 tons
- B. 1311.0 tons
- C. 1503.0 tons
- D. 1710.5 tons

k - C

BOOK # 04 QUESTION # 02619

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo	320 Tons
Upper tween deck layer	820 Tons
Lower tween deck layer	910 Tons
Hold layer	270 Tons

- A. 1171.5 tons
- B. 1311.0 tons
- C. 1503.0 tons
- D. 1710.5 tons

k - D

BOOK # 04 QUESTION # 02693

. The SS AMERICAN MARINER is loaded with the cargo distributed as indicated below. Use the white pages of the Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one-compartment standard.

Deck cargo	250 Tons
Upper tween deck layer	1320 Tons
Lower tween deck layer	310 Tons
Hold layer	370 Tons

- A. 1171.5 tons
- B. 1311.0 tons
- C. 1503.0 tons
- D. 1912.5 tons

k - D

BOOK # 04 QUESTION # 03306

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	3215	263.2
FRESH WATER	160	312.0
DRY CARGO	7880	268.5
REEFER CARGO	140	354.5
DECK CARGO	120	60.0

- A. FWD 26'-09", AFT 28'-05"
- B. FWD 26'-05", AFT 28'-07"
- C. FWD 26'-04", AFT 28'-10"
- D. FWD 26'-00", AFT 29'-00"

k - B

BOOK # 04 QUESTION # 02368

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	1805	269.0
FRESH WATER	185	312.0
DRY CARGO	6290	268.5
REEFER CARGO	170	354.5
DECK CARGO	155	223.0

- A. FWD 22'-02", AFT 25'-08"

- B. FWD 21'-07", AFT 26'-03"
- C. FWD 20'-11", AFT 26'-08"
- D. FWD 20'-11", AFT 26'-10"

k - C

BOOK # 04 QUESTION # 03266

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	1950	269.3
FRESH WATER	232	303.6
DRY CARGO	3280	260.5
REEFER CARGO	195	354.0
DECK CARGO	122	60.0

- A. FWD 17'-11", AFT 22'-07"
- B. FWD 17'-09", AFT 23'-01"
- C. FWD 17'-05", AFT 23'-04"
- D. FWD 17'-02", AFT 23'-04"

k - A

BOOK # 04 QUESTION # 03195

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	1810	260.5
FRESH WATER	120	296.0
DRY CARGO	3450	262.5
REEFER CARGO	100	354.0
DECK CARGO	60	59.0

- A. FWD 18'-05", AFT 21'-05"
- B. FWD 18'-00", AFT 21'-10"
- C. FWD 18'-06", AFT 22'-01"
- D. FWD 17'-10", AFT 22'-00"

k - D

BOOK # 04 QUESTION # 03177

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	2824	268.5
FRESH WATER	160	312.0

DRY CARGO	7190	267.5
REEFER CARGO	170	354.0
DECK CARGO	155	60.2

- A. FWD 25'-07", AFT 27'-01"
- B. FWD 25'-02", AFT 27'-06"
- C. FWD 24'-10", AFT 27'-10"
- D. FWD 24'-08", AFT 28'-00"

k - C

BOOK # 04 QUESTION # 03245

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	1380	285.0
FRESH WATER	220	298.0
DRY CARGO	9610	268.0
REEFER CARGO	310	354.0
DECK CARGO	90	60.0

- A. FWD 25'-02", AFT 29'-10"
- B. FWD 25'-06", AFT 29'-06"
- C. FWD 27'-10", AFT 26'-02"
- D. FWD 29'-11", AFT 25'-04"

k - A

BOOK # 04 QUESTION # 03006

. The SS AMERICAN MARINER will sail with the load indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	1300	280.5
FRESH WATER	230	298.0
DRY CARGO	8412	260.5
REEFER CARGO	310	355.5
DECK CARGO	150	55.0

- A. FWD 26'-03", AFT 27'-08"
- B. FWD 26'-08", AFT 25'-07"
- C. FWD 25'-06", AFT 26'-11"
- D. FWD 26'-11", AFT 25'-06"

k - C

BOOK # 04 QUESTION # 02962

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
------	------	--------

F.O. & SALT WATER	960	294.0
FRESH WATER	150	299.0
DRY CARGO	4880	265.0
REEFER CARGO	200	354.0
DECK CARGO	70	60.0

- A. FWD 17'-06", AFT 24'-03"
- B. FWD 19'-03", AFT 22'-06"
- C. FWD 17'-01", AFT 24'-08"
- D. FWD 21'-04", AFT 19'-07"

k - A

BOOK # 04 QUESTION # 02820

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
------	------	--------

F.O. & SALT WATER	3865	280.0
FRESH WATER	140	308.0
DRY CARGO	6200	254.0
REEFER CARGO	265	351.0
DECK CARGO	151	58.4

- A. FWD 26'-02", AFT 26'-08"
- B. FWD 25'-09", AFT 27'-02"
- C. FWD 25'-03", AFT 28'-09"
- D. FWD 24'-11", AFT 29'-11"

k - B

BOOK # 04 QUESTION # 02845

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
------	------	--------

F.O. & SALT WATER	2120	298.0
FRESH WATER	250	297.0
DRY CARGO	9111	264.7
REEFER CARGO	210	350.0
DECK CARGO	95	60.0

- A. FWD 27'-01", AFT 25'-08"
- B. FWD 29'-09", AFT 25'-09"
- C. FWD 25'-09", AFT 30'-05"

D. FWD 25'-06", AFT 30'-00"

k - D

BOOK # 04 QUESTION # 00861

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	3215	263.2
FRESH WATER	185	312.0
DRY CARGO	7780	261.5
REEFER CARGO	70	350.8
DECK CARGO	155	353.0
LUBE OIL	13	317.5
CREW & STORES	50	276.5
LIGHTSHIP	7675	276.5

A. FWD 26'-09", AFT 28'-00"

B. FWD 27'-00", AFT 27'-10"

C. FWD 27'-03", AFT 27'-07"

D. FWD 27'-06", AFT 27'-04"

k - A

BOOK # 04 QUESTION # 00419

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	1805	269.0
FRESH WATER	230	303.6
DRY CARGO	7190	267.5
REEFER CARGO	195	354.0
DECK CARGO	155	60.2

A. FWD 23'-03", AFT 27'-00"

B. FWD 23'-07", AFT 26'-07"

C. FWD 24'-01", AFT 26'-02"

D. FWD 24'-06", AFT 25'-10"

k - A

BOOK # 04 QUESTION # 01060

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	3215	263.2

FRESH WATER	185	312.0
DRY CARGO	7880	263.5
REEFER CARGO	170	350.8
DECK CARGO	155	223.0

- A. FWD 26'-06", AFT 28'-10"
- B. FWD 26'-10", AFT 28'-05"
- C. FWD 27'-00", AFT 28'-03"
- D. FWD 27'-03", AFT 28'-00"

k - C

BOOK # 04 QUESTION # 00722

. The SS AMERICAN MARINER will sail with the loadings indicated. Use the white pages of the Stability Data Reference Book to determine the drafts.

Item	Tons	LCG-FP
F.O. & SALT WATER	2824	262.8
FRESH WATER	140	308.0
DRY CARGO	6290	268.5
REEFER CARGO	170	354.0
DECK CARGO	151	58.4

- A. FWD 23'-03", AFT 27'-00"
- B. FWD 23'-07", AFT 26'-07"
- C. FWD 24'-01", AFT 26'-02"
- D. FWD 24'-06", AFT 25'-10"

k - B

BOOK # 04 QUESTION # 04094

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 19'-10.5", AFT 22'-11.6". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	90 tons---	210 feet fwd of amidships
Discharge	240 tons---	38 feet fwd of amidships
Discharge	120 tons---	94 feet aft of amidships
Load	140 tons---	150 feet aft of amidships

- A. FWD 20'-01.4", AFT 23'-00.6"
- B. FWD 19'-07.6", AFT 22'-10.4"
- C. FWD 19'-09.3", AFT 22'-08.7"
- D. FWD 19'-11.7", AFT 23'-02.5"

k - B

BOOK # 04 QUESTION # 02913

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-09.5", AFT 22'-09.5". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	170 tons---	120 feet fwd of amidships
Discharge	100 tons---	28 feet fwd of amidships
Discharge	70 tons---	122 feet aft of amidships
Load	200 tons---	163 feet aft of amidships

- A. FWD 21'-06.6", AFT 22'-06.6"
- B. FWD 22'-00.4", AFT 23'-00.4"
- C. FWD 22'-06.6", AFT 21'-06.6"
- D. FWD 23'-00.4", AFT 22'-00.4"

k - B

BOOK # 04 QUESTION # 02956

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-10.6", AFT 22'-11.6". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Discharge	280 tons---	200 feet fwd of amidships
Load	150 tons---	150 feet fwd of amidships
Load	150 tons---	100 feet fwd of amidships
Discharge	90 tons---	247 feet aft of amidships

- A. FWD 22'-00.1", AFT 23'-00.1"
- B. FWD 21'-11.0", AFT 23'-01.2"
- C. FWD 21'-10.0", AFT 22'-10.0"
- D. FWD 21'-08.9", AFT 22'-11.1"

k - C

BOOK # 04 QUESTION # 02610

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-06.5", AFT 23'-05.4". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Discharge	170 tons---	150 feet fwd of amidships
Load	220 tons---	100 feet fwd of amidships
Load	160 tons---	75 feet aft of amidships
Discharge	80 tons---	225 feet aft of amidships

- A. FWD 21'-07.1", AFT 23'-08.9"
- B. FWD 21'-05.9", AFT 23'-01.9"
- C. FWD 21'-03.0", AFT 23'-04.8"
- D. FWD 21'-10.0", AFT 23'-06.0"

k - D

BOOK # 04 QUESTION # 02740

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 19'-06.6", AFT 20'-05.6". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	170 tons---	165 feet fwd of amidships
Load	150 tons---	120 feet fwd of amidships
Load	160 tons---	112 feet aft of amidships
Load	155 tons---	202 feet aft of amidships

- A. FWD 20'-06.6", AFT 21'-00.4"
- B. FWD 18'-06.6", AFT 19'-09.8"
- C. FWD 18'-10.8", AFT 20'-05.6"
- D. FWD 20'-03.4", AFT 21'-05.6"

k - A

BOOK # 04 QUESTION # 00512

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-08", AFT 29'-05". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	225 tons---	110 feet fwd of amidships
Discharge	120 tons---	37 feet fwd of amidships
Load	125 tons---	30 feet aft of amidships
Load	75 tons---	200 feet aft of amidships

- A. FWD 28'-10", AFT 29'-04"
- B. FWD 29'-02", AFT 29'-07"
- C. FWD 29'-04", AFT 29'-04"
- D. FWD 29'-05", AFT 29'-08"

k - B

BOOK # 04 QUESTION # 00431

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 31'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	200 tons---	180 feet fwd of amidships
Discharge	60 tons---	25 feet fwd of amidships
Discharge	80 tons---	165 feet aft of amidships
Discharge	40 tons---	230 feet aft of amidships

- A. FWD 29'-01", AFT 31'-04"
- B. FWD 29'-05", AFT 31'-00"
- C. FWD 29'-08", AFT 30'-09"
- D. FWD 29'-11", AFT 30'-07"

k - C

BOOK # 04 QUESTION # 00602

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 30'-11". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	200 tons---	180 feet fwd of amidships
Discharge	60 tons---	25 feet fwd of amidships
Load	80 tons---	165 feet aft of amidships
Load	40 tons---	200 feet aft of amidships

- A. FWD 29'-01", AFT 30'-10"
- B. FWD 29'-03", AFT 30'-08"
- C. FWD 29'-07", AFT 30'-08"
- D. FWD 29'-08", AFT 30'-06"

k - A

BOOK # 04 QUESTION # 00682

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-08", AFT 29'-05". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Discharge	120 tons---	145 feet fwd of amidships
Load	160 tons---	87 feet fwd of amidships
Discharge	85 tons---	50 feet fwd of amidships
Discharge	100 tons---	30 feet aft of amidships

- A. FWD 28'-09", AFT 29'-00"
- B. FWD 28'-07", AFT 29'-01"
- C. FWD 28'-05", AFT 29'-08"
- D. FWD 28'-04", AFT 29'-05"

k - D

BOOK # 04 QUESTION # 02775

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-08", AFT 29'-05". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	120 tons---	145 feet fwd of amidships
Discharge	160 tons---	38 feet fwd of amidships
Load	85 tons---	35 feet aft of amidships
Discharge	170 tons---	205 feet aft of amidships

- A. FWD 28'-11", AFT 28'-11"
- B. FWD 29'-01", AFT 28'-09"
- C. FWD 29'-03", AFT 28'-07"
- D. FWD 29'-05", AFT 28'-05"

k - D

BOOK # 04 QUESTION # 02885

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 29'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Discharge 280 tons---155 feet fwd of amidships
Discharge 350 tons--- 38 feet fwd of amidships
Load 60 tons--- 35 feet aft of amidships
Discharge 120 tons---205 feet aft of amidships

- A. FWD 26'-04", AFT 30'-00"
- B. FWD 26'-06", AFT 29'-10"
- C. FWD 26'-08", AFT 29'-08"
- D. FWD 26'-10", AFT 29'-06"

k - A

BOOK # 04 QUESTION # 02990

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 30'-08". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load 180 tons---155 feet fwd of amidships
Discharge 160 tons--- 38 feet fwd of amidships
Load 140 tons--- 75 feet aft of amidships
Discharge 170 tons---205 feet aft of amidships

- A. FWD 29'-01", AFT 30'-01"
- B. FWD 29'-03", AFT 29'-11"
- C. FWD 29'-05", AFT 29'-09"
- D. FWD 29'-07", AFT 29'-07"

k - C

BOOK # 04 QUESTION # 03073

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 29'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Discharge 240 tons---155 feet fwd of amidships
Discharge 160 tons--- 38 feet fwd of amidships
Load 115 tons--- 35 feet aft of amidships
Discharge 170 tons---205 feet aft of amidships

- A. FWD 27'-01", AFT 29'-11"

- B. FWD 27'-03", AFT 29'-09"
- C. FWD 27'-05", AFT 29'-07"
- D. FWD 27'-07", AFT 29'-05"

k - B

BOOK # 04 QUESTION # 03148

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 29'-06", AFT 29'-02". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	125 tons---	155 feet fwd of amidships
Discharge	160 tons---	68 feet fwd of amidships
Load	140 tons---	75 feet aft of amidships
Load	170 tons---	185 feet aft of amidships

- A. FWD 29'-07", AFT 29'-08"
- B. FWD 29'-05", AFT 29'-10"
- C. FWD 29'-03", AFT 30'-00"
- D. FWD 29'-01", AFT 30'-02"

k - C

BOOK # 04 QUESTION # 03225

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-05", AFT 20'-11". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	120 tons---	210 feet fwd of amidships
Discharge	350 tons---	40 feet fwd of amidships
Load	340 tons---	60 feet aft of amidships
Discharge	60 tons---	190 feet aft of amidships

- A. FWD 18'-07", AFT 20'-11"
- B. FWD 18'-09", AFT 20'-09"
- C. FWD 18'-11", AFT 20'-07"
- D. FWD 19'-01", AFT 20'-05"

k - A

BOOK # 04 QUESTION # 03333

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-06", AFT 21'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	140 tons---	170 feet fwd of amidships
Discharge	320 tons---	60 feet fwd of amidships
Load	270 tons---	132 feet aft of amidships
Discharge	230 tons---	190 feet aft of amidships

- A. FWD 18'-05", AFT 21'-07"
- B. FWD 18'-07", AFT 21'-05"
- C. FWD 18'-09", AFT 21'-03"
- D. FWD 18'-11", AFT 21'-01"

k - B

BOOK # 04 QUESTION # 03495

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 17'-10", AFT 19'-06". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	95 tons---	210 feet fwd of amidships
Discharge	160 tons---	60 feet fwd of amidships
Load	140 tons---	60 feet aft of amidships
Load	170 tons---	190 feet aft of amidships

- A. FWD 16'-10", AFT 21'-02"
- B. FWD 17'-00", AFT 21'-00"
- C. FWD 17'-02", AFT 20'-10"
- D. FWD 17'-04", AFT 20'-08"

k - D

BOOK # 04 QUESTION # 03549

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-10", AFT 18'-06". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	140 tons---	170 feet fwd of amidships
Discharge	160 tons---	60 feet fwd of amidships
Discharge	140 tons---	60 feet aft of amidships
Load	230 tons---	190 feet aft of amidships

- A. FWD 18'-00", AFT 19'-06"
- B. FWD 18'-02", AFT 19'-04"
- C. FWD 18'-04", AFT 19'-02"
- D. FWD 18'-06", AFT 19'-00"

k - C

BOOK # 04 QUESTION # 04006

. The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-06", AFT 20'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.

Load	140 tons---	170 feet fwd of amidships
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Discharge 160 tons--- 60 feet fwd of amidships
Load 140 tons---132 feet aft of amidships
Discharge 230 tons---190 feet aft of amidships

- A. FWD 18'-11", AFT 20'-02"
- B. FWD 19'-01", AFT 20'-00"
- C. FWD 19'-03", AFT 19'-10"
- D. FWD 19'-05", AFT 19'-08"

k - D

BOOK # 02 QUESTION # 03208

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION		
1.	FORE PEAK	0
2.	DEEP TANK P/S	0
3.	FWD STORES	6
4.	FWD BUNKERS	1600
5.	FWD COFFERDAM	0
6.	#1 CARGO TANK	4759
7.	#2 CARGO TANK	5288
8.	#3 CARGO TANK	5463
9.	#4 CARGO TANK	0
10.	BRIDGE CREW	3
11.	BRIDGE STORES	10
12.	BRIDGE F.W.	10
13.	#5 CARGO TANK	5486
14.	#6 BALLAST TANK	2408
15.	#7 CARGO/BALLAST TANK	5446
16.	#8 CARGO/BALLAST TANK	2410
17.	#9 CARGO/BALLAST TANK	5454
18.	#10 CARGO TANK	5349
19.	#11 CARGO TANK	5026
20.	AFT COFFERDAM	0
21.	AFT BUNKERS	800
22.	AFT SETTLERS	360
23.	DISTILLED WATER	50
24.	AFT STORES	75
25.	AFT CREW	7
26.	F.W. AFT	65
27.	AFT PEAK	0

- A. 72.42 numeral
- B. 78.98 numeral
- C. 83.46 numeral
- D. 91.48 numeral

k - B

BOOK # 02 QUESTION # 04056

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION			
1.	FORE PEAK	0	
2.	DEEP TANK P/S	0	
3.	FWD STORES	6	
4.	FWD BUNKERS	2867	
5.	FWD COFFERDAM	0	
6.	#1 CARGO TANK	3596	
7.	#2 CARGO TANK	3996	
8.	#3 CARGO TANK	4128	
9.	#4 CARGO TANK		4146
10.	BRIDGE CREW	0	
11.	BRIDGE STORES	0	
12.	BRIDGE F.W.	0	
13.	#5 CARGO TANK	0	
14.	#6 BALLAST TANK	0	
15.	#7 CARGO/BALLAST TANK	1821	
16.	#8 CARGO/BALLAST TANK	2328	
17.	#9 CARGO/BALLAST TANK	2303	
18.	#10 CARGO TANK	4042	
19.	#11 CARGO TANK	3798	
20.	AFT COFFERDAM	0	
21.	AFT BUNKERS	850	
22.	AFT SETTLERS	340	
23.	DISTILLED WATER	60	
24.	AFT STORES	80	
25.	AFT CREW	7	
26.	F.W. AFT	70	
27.	AFT PEAK	0	

- A. 89.75 numeral
- B. 40.18 numeral
- C. 28.62 numeral
- D. 22.44 numeral

k - D

BOOK # 02 QUESTION # 03776

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION			
1.	FORE PEAK	749	
2.	DEEP TANK P/S	1747	
3.	FWD STORES	6	

4.	FWD BUNKERS	2867	
5.	FWD COFFERDAM	338	
6.	#1 CARGO TANK	0	
7.	#2 CARGO TANK	0	
8.	#3 CARGO TANK	0	
9.	#4 CARGO TANK	0	
10.	BRIDGE CREW	3	
11.	BRIDGE STORES	10	
12.	BRIDGE F.W.	10	
13.	#5 CARGO TANK	0	
14.	#6 BALLAST TANK	2595	
15.	#7 CARGO/BALLAST TANK	3315	
16.	#8 CARGO/BALLAST TANK	2595	
17.	#9 CARGO/BALLAST TANK	2595	
18.	#10 CARGO TANK	0	
19.	#11 CARGO TANK	0	
20.	AFT COFFERDAM	239	
21.	AFT BUNKERS	859	
22.	AFT SETTLERS	360	
23.	DISTILLED WATER	60	
24.	AFT STORES	80	
25.	AFT CREW	7	
26.	F.W. AFT	71	
27.	AFT PEAK	394	

- A. 29.70 numeral
- B. 33.63 numeral
- C. 49.82 numeral
- D. 58.33 numeral

k - A

18400.03

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the hogging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION

1.	FORE PEAK	0	
2.	DEEP TANK P/S	0	
3.	FWD STORES	6	
4.	FWD BUNKERS	1600	
5.	FWD COFFERDAM	0	
6.	#1 CARGO TANK	4759	
7.	#2 CARGO TANK	5288	
8.	#3 CARGO TANK	5463	
9.	#4 CARGO TANK	0	
10.	BRIDGE CREW	3	
11.	BRIDGE STORES	10	
12.	BRIDGE F.W.	10	
13.	#5 CARGO TANK	5486	
14.	#6 BALLAST TANK	2408	
15.	#7 CARGO/BALLAST TANK	5446	

16.	#8 CARGO/BALLAST TANK	2410
17.	#9 CARGO/BALLAST TANK	5454
18.	#10 CARGO TANK	5349
19.	#11 CARGO TANK	5026
20.	AFT COFFERDAM	0
21.	AFT BUNKERS	800
22.	AFT SETTLERS	360
23.	DISTILLED WATER	50
24.	AFT STORES	75
25.	AFT CREW	7
26.	F.W. AFT	65
27.	AFT PEAK	0

- A. 101.02 numeral
- B. 91.36 numeral
- C. 72.43 numeral
- D. 52.60 numeral

k - D

BOOK # 02 QUESTION # 02176

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the hogging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION		
1.	FORE PEAK	749
2.	DEEP TANK P/S	1747
3.	FWD STORES	6
4.	FWD BUNKERS	2867
5.	FWD COFFERDAM	338
6.	#1 CARGO TANK	0
7.	#2 CARGO TANK	0
8.	#3 CARGO TANK	0
9.	#4 CARGO TANK	0
10.	BRIDGE CREW	3
11.	BRIDGE STORES	10
12.	BRIDGE F.W.	10
13.	#5 CARGO TANK	0
14.	#6 BALLAST TANK	2595
15.	#7 CARGO/BALLAST TANK	3315
16.	#8 CARGO/BALLAST TANK	2595
17.	#9 CARGO/BALLAST TANK	2595
18.	#10 CARGO TANK	0
19.	#11 CARGO TANK	0
20.	AFT COFFERDAM	239
21.	AFT BUNKERS	859
22.	AFT SETTLERS	360
23.	DISTILLED WATER	60
24.	AFT STORES	80
25.	AFT CREW	7
26.	F.W. AFT	71
27.	AFT PEAK	394

- A. 91.42 numeral
- B. 85.60 numeral
- C. 79.23 numeral
- D. 74.73 numeral

k- C

BOOK # 02 QUESTION # 02734

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the hogging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION

1.	FORE PEAK	0	
2.	DEEP TANK P/S	0	
3.	FWD STORES	6	
4.	FWD BUNKERS	2867	
5.	FWD COFFERDAM	0	
6.	#1 CARGO TANK	3596	
7.	#2 CARGO TANK	3996	
8.	#3 CARGO TANK	4128	
9.	#4 CARGO TANK	4146	
10.	BRIDGE CREW	0	
11.	BRIDGE STORES	0	
12.	BRIDGE F.W.	0	
13.	#5 CARGO TANK	0	
14.	#6 BALLAST TANK	0	
15.	#7 CARGO/BALLAST TANK	1821	
16.	#8 CARGO/BALLAST TANK	2328	
17.	#9 CARGO/BALLAST TANK	2303	
18.	#10 CARGO TANK	4042	
19.	#11 CARGO TANK	3798	
20.	AFT COFFERDAM	0	
21.	AFT BUNKERS	850	
22.	AFT SETTLERS	340	
23.	DISTILLED WATER	60	
24.	AFT STORES	80	
25.	AFT CREW	7	
26.	F.W. AFT	70	
27.	AFT PEAK	0	

- A. 98.23 numeral
- B. 95.70 numeral
- C. 84.46 numeral
- D. 81.37 numeral

k - B

BOOK # 02 QUESTION # 01502

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the hogging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION		
1.	FORE PEAK	0
2.	DEEP TANK P/S	0
3.	FWD STORES	6
4.	FWD BUNKERS	1600
5.	FWD COFFERDAM	0
6.	#1 CARGO TANK	5229
7.	#2 CARGO TANK	5193
8.	#3 CARGO TANK	4229
9.	#4 CARGO TANK	5116
10.	BRIDGE CREW	3
11.	BRIDGE STORES	12
12.	BRIDGE F.W.	15
13.	#5 CARGO TANK	3956
14.	#6 BALLAST TANK	1628
15.	#7 CARGO/BALLAST TANK	5929
16.	#8 CARGO/BALLAST TANK	6012
17.	#9 CARGO/BALLAST TANK	0
18.	#10 CARGO TANK	5417
19.	#11 CARGO TANK	3257
20.	AFT COFFERDAM	0
21.	AFT BUNKERS	900
22.	AFT SETTLERS	325
23.	DISTILLED WATER	56
24.	AFT STORES	75
25.	AFT CREW	7
26.	F.W. AFT	57
27.	AFT PEAK	375

- A. 49.73 numeral
- B. 52.76 numeral
- C. 55.29 numeral
- D. 57.93 numeral

k - A

BOOK # 02 QUESTION # 01015

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION		
1.	FORE PEAK	0
2.	DEEP TANK P/S	0
3.	FWD STORES	6
4.	FWD BUNKERS	1600
5.	FWD COFFERDAM	0

6.	#1 CARGO TANK	5229
7.	#2 CARGO TANK	5193
8.	#3 CARGO TANK	4229
9.	#4 CARGO TANK	5116
10.	BRIDGE CREW	3
11.	BRIDGE STORES	12
12.	BRIDGE F.W.	15
13.	#5 CARGO TANK	3956
14.	#6 BALLAST TANK	1628
15.	#7 CARGO/BALLAST TANK	5929
16.	#8 CARGO/BALLAST TANK	6012
17.	#9 CARGO/BALLAST TANK	0
18.	#10 CARGO TANK	5417
19.	#11 CARGO TANK	3257
20.	AFT COFFERDAM	0
21.	AFT BUNKERS	900
22.	AFT SETTLERS	325
23.	DISTILLED WATER	56
24.	AFT STORES	75
25.	AFT CREW	7
26.	F.W. AFT	57
27.	AFT PEAK	375

- A. 71.07 numeral
- B. 74.95 numeral
- C. 77.56 numeral
- D. 78.29 numeral

k - D

BOOK # 02 QUESTION # 00443

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the hogging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION

1.	FORE PEAK	0
2.	DEEP TANK P/S	0
3.	FWD STORES	6
4.	FWD BUNKERS	1600
5.	FWD COFFERDAM	0
6.	#1 CARGO TANK	5229
7.	#2 CARGO TANK	5193
8.	#3 CARGO TANK	4229
9.	#4 CARGO TANK	5116
10.	BRIDGE CREW	3
11.	BRIDGE STORES	12
12.	BRIDGE F.W.	15
13.	#5 CARGO TANK	2956
14.	#6 BALLAST TANK	1628
15.	#7 CARGO/BALLAST TANK	0
16.	#8 CARGO/BALLAST TANK	0
17.	#9 CARGO/BALLAST TANK	6012

18. #10 CARGO TANK	5417
19. #11 CARGO TANK	3257
20. AFT COFFERDAM	0
21. AFT BUNKERS	900
22. AFT SETTLERS	325
23. DISTILLED WATER	56
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	375

- A. 86.72 numeral
- B. 89.98 numeral
- C. 91.40 numeral
- D. 93.18 numeral

k - C

BOOK # 02 QUESTION # 00992

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION	
1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	5229
7. #2 CARGO TANK	5193
8. #3 CARGO TANK	4229
9. #4 CARGO TANK	5116
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	15
13. #5 CARGO TANK	2956
14. #6 BALLAST TANK	1628
15. #7 CARGO/BALLAST TANK	0
16. #8 CARGO/BALLAST TANK	0
17. #9 CARGO/BALLAST TANK	6012
18. #10 CARGO TANK	5417
19. #11 CARGO TANK	3257
20. AFT COFFERDAM	0
21. AFT BUNKERS	900
22. AFT SETTLERS	325
23. DISTILLED WATER	56
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	375

- A. 29.49 numeral
- B. 31.97 numeral
- C. 33.61 numeral
- D. 35.12 numeral

k - B

BOOK # 02 QUESTION # 01897

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the hogging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION		
1.	FORE PEAK	0
2.	DEEP TANK P/S	0
3.	FWD STORES	6
4.	FWD BUNKERS	1600
5.	FWD COFFERDAM	0
6.	#1 CARGO TANK	4659
7.	#2 CARGO TANK	5280
8.	#3 CARGO TANK	5489
9.	#4 CARGO TANK	0
10.	BRIDGE CREW	3
11.	BRIDGE STORES	12
12.	BRIDGE F.W.	10
13.	#5 CARGO TANK	5196
14.	#6 BALLAST TANK	2400
15.	#7 CARGO/BALLAST TANK	5319
16.	#8 CARGO/BALLAST TANK	5400
17.	#9 CARGO/BALLAST TANK	6000
18.	#10 CARGO TANK	5361
19.	#11 CARGO TANK	4952
20.	AFT COFFERDAM	0
21.	AFT BUNKERS	850
22.	AFT SETTLERS	360
23.	DISTILLED WATER	50
24.	AFT STORES	75
25.	AFT CREW	7
26.	F.W. AFT	57
27.	AFT PEAK	0

- A. 43.19 numeral
- B. 46.56 numeral
- C. 49.92 numeral
- D. 55.72 numeral

k - A

BOOK # 02 QUESTION # 02051

. The tankship Northland is loaded as described below. Use the salmon pages in the Stability Data Reference Book to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION

1.	FORE PEAK	0	
2.	DEEP TANK P/S	0	
3.	FWD STORES	6	
4.	FWD BUNKERS	1600	
5.	FWD COFFERDAM	0	
6.	#1 CARGO TANK	4659	
7.	#2 CARGO TANK	5280	
8.	#3 CARGO TANK	5498	
9.	#4 CARGO TANK	0	
10.	BRIDGE CREW	3	
11.	BRIDGE STORES	12	
12.	BRIDGE F.W.	10	
13.	#5 CARGO TANK	5196	
14.	#6 BALLAST TANK	2400	
15.	#7 CARGO/BALLAST TANK	5319	
16.	#8 CARGO/BALLAST TANK	5400	
17.	#9 CARGO/BALLAST TANK	6000	
18.	#10 CARGO TANK	5361	
19.	#11 CARGO TANK	4952	
20.	AFT COFFERDAM	0	
21.	AFT BUNKERS	850	
22.	AFT SETTLERS	360	
23.	DISTILLED WATER	50	
24.	AFT STORES	75	
25.	AFT CREW	7	
26.	F.W. AFT	57	
27.	AFT PEAK	0	

- A. 81.79 numeral
- B. 85.02 numeral
- C. 89.68 numeral
- D. 91.92 numeral

k - D

BOOK # 04 QUESTION # 00986

At 0900 zone time, on 23 September 1981, your DR position is LAT 28°48.0' N, LONG 153°11.5' W. You are steering course 257° T at a speed of 18.0 knots. Three morning Sun lines are observed, and the following information is determined:

ZONE TIME	OBSERVED		
	GHA	ALTITUDE	DECLINATION
0915	110°44.9'	40°01.9'	S 0°15.8'
0950	119°27.4'	46°22.9'	S 0°16.3'
1020	127°00.9'	51°21.7'	S 0°16.8'

What is the latitude and longitude of your 1020 zone time running fix?

- A. 28°43.3' N, 153°32.1' W
- B. 28°46.4' N, 153°34.6' W
- C. 28°49.1' N, 153°37.0' W
- D. 28°52.8' N, 153°30.6' W

k - C

BOOK # 05 QUESTION # 00991

On 23 June 1981, your 0900 zone time DR position is LAT 21°26.0' N, LONG 137°46.0' W. Your vessel is on course 059° T at a speed of 19.0 knots. What is the zone time of local apparent noon (LAN)?

- A. 1159
- B. 1205
- C. 1210
- D. 1214

k - B

BOOK # 05 QUESTION # 00992

At 0100 zone time, on 23 September 1981, your DR position is LAT 24°25.0' N, LONG 83°00.0' W. You are steering course 315° T. The speed over the ground is 10.0 knots. Three morning Sun lines are observed, and the following information is determined:

ZONE TIME	GHA	OBSERVED ALTITUDE (Ho)	DECLINATION
0700	17°20.1'	21°09.0'	S 00°09.7'
0900	47°03.0'	46°05.0'	S 00°11.6'
1100	77°06.4'	63°16.1'	S 00°13.5'

What is the latitude and longitude of your 1100 zone time running fix?

- A. LAT 25°35.3' N, LONG 84°17.0' W
- B. LAT 25°42.6' N, LONG 84°18.7' W
- C. LAT 25°30.4' N, LONG 84°28.6' W
- D. LAT 25°28.3' N, LONG 84°34.3' W

k - A

BOOK # 05 QUESTION # 00993

Your 0745 ZT, 15 July 1981, position is LAT 29°04.0' N, LONG 71°17.5' W. You are on course 165° T, and your speed is 8.0 knots. Three morning Sun lines are observed, and the following information is determined:

ZONE TIME	GHA	OBSERVED ALTITUDE	DECLINATION
0830	21°01.8'	44°16.4'	N 21°29.2'
0930	36°01.7'	57°25.5'	N 21°28.8'

1130 66°01.6' 81°30.2' N 21°28.0'

What are the latitude and longitude of your 1130 running fix?

- A. LAT 28°35.0' N, LONG 71°08.5' W
- B. LAT 28°39.8' N, LONG 71°04.0' W
- C. LAT 28°40.5' N, LONG 71°13.0' W
- D. LAT 28°43.3' N, LONG 71°02.5' W

k - A

BOOK # 05 QUESTION # 00994

At 0600 zone time, on 16 March 1981, your DR position is LAT 20°10.0' N, LONG 81°30.0' W. You are steering course 300° T. The speed over the ground is 10 knots. Three morning Sun lines are observed, and the following information is determined:

ZONE TIME	GHA	OBSERVED ALTITUDE (Ho)	DECLINATION
0800	12°50.0'	19°00.0'	S 01°38.8'
1030	50°20.4'	51°42.0'	S 01°36.5'
1130	65°20.5'	62°11.5'	S 01°35.5'

What are the latitude and longitude of your 1130 zone time running fix?

- A. LAT 20°28.5' N, LONG 82°12.6' W
- B. LAT 20°32.0' N, LONG 82°16.4' W
- C. LAT 20°39.0' N, LONG 82°22.9' W
- D. LAT 20°42.5' N, LONG 82°26.2' W

k - C

BOOK # 05 QUESTION # 1000

On 18 May 1981, your 1030 ZT DR position is LAT 18°30' N, LONG 62°31' W. You are on course 286° T, speed 24 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1204	61°54.6'	N 19°37.6'	88°39.7'
1210	63°24.6'	N 19°37.7'	88°59.2'

What was the 1200 position?

- A. LAT 18°33.6' N, LONG 62°54.3' W
- B. LAT 18°35.2' N, LONG 62°49.7' W
- C. LAT 18°38.7' N, LONG 62°59.2' W
- D. LAT 18°41.1' N, LONG 62°53.9' W

k - D

BOOK # 05 QUESTION # 1001

On 26 July 1981, your 1030 ZT DR position is LAT 18°25' N, LONG 51°15' W. You are on course 231° T, speed 15 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1228	50°23.5'	N 19°21.9'	88°14.3'
1236	52°23.5'	N 19°21.8'	88°29.0'

What was the 1200 position?

- A. LAT 18°00.9' N, LONG 51°31.9' W
- B. LAT 18°03.5' N, LONG 51°36.2' W
- C. LAT 18°07.2' N, LONG 51°30.4' W
- D. LAT 18°10.6' N, LONG 51°25.1' W

k - C

BOOK # 05 QUESTION # 1002

On 13 November 1981, your 1030 ZT DR position is LAT 19°03' S, LONG 6°34' E. You are on course 164° T, speed 12 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1112	351°55.4'	S 18°00.4'	88°08.0'
1121	354°10.4'	S 18°00.5'	88°33.9'

What was the 1200 position?

- A. LAT 19°22.3' S, LONG 6°37.8' E
- B. LAT 19°20.1' S, LONG 6°41.4' E
- C. LAT 19°17.6' S, LONG 6°39.2' E
- D. LAT 19°15.8' S, LONG 6°36.8' E

k - A

BOOK # 05 QUESTION # 1003

On 15 November 1981, your 1030 ZT DR position is LAT 17°25' S, LONG 42°12' W. You are on course 059° T, speed 22 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1128	40°50.4'	S 18°33.6'	88°18.4'
1133	42°05.4'	S 18°33.6'	88°37.7'

What was the 1200 position?

- A. LAT 17°00.0' S, LONG 41°45.8' W
- B. LAT 17°02.1' S, LONG 41°48.4' W
- C. LAT 17°06.8' S, LONG 41°44.3' W
- D. LAT 17°08.9' S, LONG 41°40.4' W

k - C

BOOK # 05 QUESTION # 1004

On 15 November 1981, your 1030 ZT DR position is LAT 19°41' S, LONG 41°37' W. You are on course 239° T, speed 22 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1128	40°50.4'	S 18°33.6'	88°18.4'
1133	42°05.4'	S 18°33.6'	88°37.7'

What was the 1200 position?

- A. LAT 20°01.0' S, LONG 42°05.9' W
- B. LAT 20°04.3' S, LONG 42°09.8' W
- C. LAT 20°06.7' S, LONG 42°06.1' W
- D. LAT 20°08.1' S, LONG 42°00.7' W

k - A

BOOK # 05 QUESTION # 1005

On 18 May 1981, your 1030 ZT DR position is LAT 20°41' N, LONG 63°32' W. You are on course 106° T, speed 24 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1204	61°54.6'	N 19°37.6'	88°39.7'
1210	63°24.6'	N 19°37.7'	88°59.2'

What was the 1200 position?

- A. LAT 20°32.6' N, LONG 62°57.5' W
- B. LAT 20°30.1' N, LONG 63°01.9' W
- C. LAT 20°27.6' N, LONG 62°52.4' W
- D. LAT 20°25.2' N, LONG 62°56.9' W

k - A

BOOK # 05 QUESTION # 1006

On 30 July 1981, your 1030 ZT DR position is LAT 19°02' N, LONG 138°12' W. You are on course 309° T, speed 24 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1220	138°25.0'	N 18°22.3'	88°43.3'
1226	139°55.0'	N 18°22.2'	88°24.0'

What was the 1200 position?

- A. LAT 19°28.0' N, LONG 138°35.2' W
- B. LAT 19°29.7' N, LONG 138°42.0' W
- C. LAT 19°32.6' N, LONG 138°49.4' W
- D. LAT 19°34.5' N, LONG 138°40.9' W

k - B

BOOK # 05 QUESTION # 1007

On 30 July 1981, your 1030 ZT DR position is LAT 17°46' N, LONG 139°30' W. You are on course 129° T, speed 24 knots. You take the following observations of the Sun:

ZONE TIME	GHA	DECLINATION	Ho
1220	138°25.0'	N 18°22.3'	88°43.3'
1226	139°55.0'	N 18°22.2'	88°24.0'

What was the 1200 position?

- A. LAT 17°24.0' N, LONG 138°59.8' W
- B. LAT 17°21.6' N, LONG 138°56.2' W
- C. LAT 17°18.7' N, LONG 139°07.6' W
- D. LAT 17°15.1' N, LONG 139°00.0' W

k - D

BOOK # 05 QUESTION # 1480

On 28 November 1981, your vessel's 0712 zone time DR position is LAT 26°54' S, LONG 45°18' W, when an azimuth of the Sun is taken:

Chronometer time: 10h 09m 18s
Chronometer error: slow 02m 54s
Gyro bearing: 102°

What is the gyro error?

- A. 1.7° W
- B. 0.6° W
- C. 1.1° E

D. 0.8° E

k - B

BOOK # 05 QUESTION # 01481

On 24 May 1981, your vessel's 1000 ZT position is LAT 25°36.0' N, LONG 118°39.5' W, when an azimuth of the Sun is taken:

Chronometer time: 06h 21m 48s
Chronometer error: fast 01m 36s
Gyro bearing: 099.4°
Variation: 11.1° E

What is the gyro error?

- A. 0.3° W
- B. 1.3° W
- C. 1.8° E
- D. 2.4° E

k - B

BOOK # 05 QUESTION # 01482

On 20 July 1981, your vessel's 1626 zone time DR position is LAT 27°13.0' N, LONG 63°42.0' W, when an azimuth of the Sun is taken:

Chronometer time: 08h 24m 18s
Chronometer error: slow 02m 12s
Gyro bearing: 279.3°
Variation: 15° W

What is the gyro error?

- A. 1.9° W
- B. 2.6° W
- C. 1.4° E
- D. 2.6° E

k - A

BOOK # 05 QUESTION # 01076

On 25 March 1981, your 0500 ZT DR position is LAT 28°14.0' S, LONG 93°17.0' E. You are on course 291° T at a speed of 16.0 knots. The following bodies are observed and information determined:

	ZONE		OBSERVED		
BODY	TIME	GHA	ALTITUDE (Ho)		DECLINATION
Peacock	0520	226°18.5'	49°42.9'		S 56°47.6'
Altair	0535	238°38.2'	43°53.1'		N 8°48.9'

Spica 0550 338°48.5' 21°11.7' S 11°03.8'

What are the latitude and longitude of your 0550 zone time running fix?

- A. LAT 28°15.9' S, LONG 92°56.9' E
- B. LAT 28°19.3' S, LONG 92°59.0' E
- C. LAT 28°06.4' S, LONG 93°02.5' E
- D. LAT 27°53.2' S, LONG 93°17.6' E

k - A

BOOK # 05 QUESTION # 01077

On 15 July 1981, your 1845 ZT DR position is LAT 27°42.0' N, LONG 167°02.0' E. You are on course 243° T at a speed of 16.0 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE (Ho)	DECLINATION
Deneb	1905	104°08.0	19°52.4'	N 45°12.8'
Antares	1924	172°02.1'	32°22.1'	S 26°23.5'
Denebola	1945	247°20.6'	38°22.3'	N 14°40.7'

What are the latitude and longitude of your 1945 zone time running fix?

- A. LAT 27°31.1' N, LONG 166°43.0' E
- B. LAT 27°38.5' N, LONG 166°45.1' E
- C. LAT 27°45.3' N, LONG 166°32.2' E
- D. LAT 27°46.9' N, LONG 166°39.8' E

k - A

BOOK # 05 QUESTION # 01078

On 6 April 1981, your 1830 ZT DR position is LAT 26°33.0' N, LONG 64°31.0' W. You are on course 082° T at a speed of 16 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Sirius	1836	73°02.7'	46°00.5'	S 16°41.7'
Regulus	1842	23°46.9'	49°07.2'	N 12°03.5'
Mirfak	1900	129°24.3'	35°51.6'	N 49°47.7'

What are the latitude and longitude of your 1900 zone time running fix?

- A. LAT 26°49.5' N, LONG 64°06.5' W
- B. LAT 26°32.5' N, LONG 64°27.1' W
- C. LAT 26°31.2' N, LONG 64°32.1' W
- D. LAT 26°28.7' N, LONG 64°32.1' W

k - B

BOOK # 05 QUESTION # 01079

On 12 December 1981, your 1830 ZT DR position is LAT 24°16.0' S, LONG 41°18.0' W. You are on course 235° T at a speed of 16.0 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED			DECLINATION
		GHA	ALTITUDE (Ho)		
Rigel	1845	329°19.7'	19°54.7'	S	8°13.4'
Peacock	1910	107°58.4'	32°43.9'	S	56°47.8'
Markab	1930	73°04.1'	39°53.1'	N	15°06.5'

What are the latitude and longitude of your 1930 zone time running fix?

- A. LAT 24°12.5' S, LONG 41°10.9' W
- B. LAT 24°16.9' S, LONG 41°18.2' W
- C. LAT 24°25.2' S, LONG 41°39.9' W
- D. LAT 27°46.9' S, LONG 41°31.2' W

k - B

BOOK # 05 QUESTION # 01080

On 20 February 1981, your 0530 ZT DR position is LAT 24°15.0' N, LONG 137°33.0' W. You are on course 033° T at a speed of 18 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED			DECLINATION
		GHA	ALTITUDE (Ho)		
Regulus	0540	218°35.9'	13°02.2'	N	12°03.5'
Antares	0552	126°23.5'	38°04.1'	S	26°23.3'
Vega	0600	96°23.2'	52°33.5'	N	38°45.8'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 24°23.3' N, LONG 137°35.5' W
- B. LAT 24°26.0' N, LONG 137°25.8' W
- C. LAT 24°27.5' N, LONG 137°31.8' W
- D. LAT 24°30.1' N, LONG 137°24.5' W

k - C

BOOK # 05 QUESTION # 01081

On 14 September 1981, your 1810 ZT DR position is LAT 27°12.0' S, LONG 71°10.0' E. You are on course 060° T at a speed of 15.0 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED			DECLINATION
		GHA	ALTITUDE (Ho)		
Venus	1810	341°30.4'	38°48.9'	S	12°48.1'
Altair	1816	255°00.4'	41°20.3'	N	8°49.3'

Peacock 1822 247°55.8' 48°39.5' S 56°47.8'

What are the latitude and longitude of your 1822 zone time running fix?

- A. LAT 27°04.5' S, LONG 71°22.4' E
- B. LAT 27°07.5' S, LONG 71°18.6' E
- C. LAT 27°09.2' S, LONG 71°11.3' E
- D. LAT 27°11.0' S, LONG 71°14.5' E

k - D

BOOK # 05 QUESTION # 01082

On 20 November 1981, your 1030 ZT DR position is LAT 27°16.0' N, LONG 157°18.6' E. You are on course 060° T at a speed of 20 knots. The following bodies are observed and information determined:

	ZONE		OBSERVED		
BODY	TIME	GHA	ALTITUDE (Ho)		DECLINATION
Moon	1030	259°24.4'	34°01.5'	N	9°47.3'
Sun	1116	202°30.5'	43°00.0'	S	19°38.0'
Venus	1200	162°57.7'	24°26.9'	S	26°02.4'

What are the latitude and longitude of your 1200 zone time running fix?

- A. LAT 27°16.8' N, LONG 157°30.5' E
- B. LAT 27°22.6' N, LONG 157°37.8' E
- C. LAT 27°29.7' N, LONG 157°43.0' E
- D. LAT 27°33.4' N, LONG 157°48.2' E

k - C

BOOK # 05 QUESTION # 01083

On 21 November 1981, your 1146 ZT DR position is LAT 26°05.0' N, LONG 90°02.0' W. You are on course 300° T at a speed of 20.0 knots. The following bodies are observed and information determined:

	ZONE		OBSERVED		
BODY	TIME	GHA	ALTITUDE (Ho)		DECLINATION
Sun L/L	1146	90°02.0'	43°50.5'	S	20°00.0'
Venus	1216	46°53.6'	23°16.3'	S	25°49.1'
Moon L/L	1246	154°30.6'	23°56.1'	N	01°57.3'

What are the latitude and longitude of your 1246 zone time running fix?

- A. LAT 26°09.0' N, LONG 90°10.5' W
- B. LAT 26°14.5' N, LONG 90°15.8' W
- C. LAT 26°19.0' N, LONG 90°21.0' W
- D. LAT 26°24.2' N, LONG 90°24.0' W

k - C

BOOK # 05 QUESTION # 01084

On 4 December 1981, your 1500 ZT DR position is LAT 18°06.0' N, LONG 75°42.0' W. You are on course 020° T at a speed of 15.0 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE (Ho)	DECLINATION
Venus	1500	73°51.1'	48°29.5'	S 23°22.1'
Sun L/L	1524	128°25.7'	24°24.9'	S 22°18.6'
Moon L/L	1548	37°54.1'	43°24.8'	S 9°43.0'

What are the latitude and longitude of your 1548 zone time running fix?

- A. LAT 18°10.3' N, LONG 75°34.5' W
- B. LAT 18°12.6' N, LONG 75°42.0' W
- C. LAT 18°14.0' N, LONG 75°40.0' W
- D. LAT 18°17.3' N, LONG 75°37.7' W

k - D

BOOK # 05 QUESTION # 01085

On 20 February 1981, your vessel is enroute from Honolulu, HI, to San Francisco, CA, steering course 033° T and making a speed of 18 knots. Your 0530 zone time DR is LAT 24°15.0' N, LONG 137°33.0' W. Three stars are observed and the following information is determined:

STAR	ZONE TIME	BODY'S		OBSERVED ALTITUDE (Ho)
		GHA	DECLINATION	
Regulus	0540	218°35.9'	N 12°03.5'	13°02.2'
Antares	0552	126°23.5'	S 26°23.3'	38°04.1'
Vega	0600	96°23.2'	N 38°45.8'	52°33.5'

What is the position of your vessel at 0600?

- A. LAT 24°24.3' N, LONG 137°35.5' W
- B. LAT 24°26.0' N, LONG 137°25.8' W
- C. LAT 24°27.5' N, LONG 137°31.8' W
- D. LAT 24°30.1' N, LONG 137°24.5' W

k - C

BOOK # 05 QUESTION # 01086

On 15 July 1981, your vessel is enroute from Portland, OR, to Singapore, Malaysia, steering course 243° T and making a speed of 16 knots. Your 1845 zone time DR is LAT 27°42.0' N, LONG 167°02.0' E. Three stars are observed and the following information is determined:

STAR	ZONE TIME	BODY'S		OBSERVED ALTITUDE (Ho)
		GHA	DECLINATION	

Deneb	1905	104°08.0'	N	45°12.8'	19°52.4'
Antares	1924	172°02.1'	S	26°23.5'	32°22.1'
Denebola	1945	247°20.6'	N	14°40.7'	38°22.3'

What is the position of your vessel at 1945?

- A. LAT 27°31.1' N, LONG 166°43.0' E
- B. LAT 27°38.5' N, LONG 166°45.1' E
- C. LAT 27°45.3' N, LONG 166°32.2' E
- D. LAT 28°18.1' N, LONG 166°39.8' E

k - A

BOOK # 05 QUESTION # 01087

On 15 August 1981, your vessel is enroute from Bombay, India, to San Francisco, CA, steering course 020° T and making a speed of 20.0 knots. Your 1830 zone time DR is LAT 26°13.0' N, LONG 135°18.0' W. Three stars are observed and the following information is determined:

STAR	ZONE TIME	BODY'S GHA	BODY'S DECLINATION	OBSERVED ALTITUDE (Ho)
Spica	1848	180°24.3'	S 11°03.8'	32°21.4'
Altair	1910	89°29.8'	N 8°49.3'	43°06.3'
Kochab	1935	170°33.4'	N 74°14.3'	39°12.0'

What is the position of your vessel at 1935?

- A. LAT 26°15.9' N, LONG 135°03.6' W
- B. LAT 26°35.3' N, LONG 135°24.8' W
- C. LAT 26°40.5' N, LONG 135°21.6' W
- D. LAT 26°48.1' N, LONG 135°20.7' W

k - D

BOOK # 05 QUESTION # 01088

On 9 June 1981, your 0000 DR position is LAT 26°14.0' S, LONG 176°38.1' E. You are on course 223° T, speed 17.8 knots. Four stars are observed for morning stars and the following data determined:

STAR	ZONE TIME	BODY'S GHA	BODY'S DECLINATION	OBSERVED ALTITUDE (Ho)
Achernar	0612	139°47.5'	S 57°19.8'	46°42.8'
Altair	0620	228°34.3'	N 8°49.1'	34°14.4'
Kaus	0626	251°48.6'	S 34°23.6'	33°25.5'
Austrailus				
Fomalhaut	0630	184°33.8'	S 29°43.2'	87°58.7'

What is the 0630 position of your vessel?

- A. LAT 27°44.7' S, LONG 174°57.1' E

- B. LAT 27°46.2' S, LONG 175°03.0' E
- C. LAT 27°41.2' S, LONG 175°01.2' E
- D. LAT 27°38.5' S, LONG 175°06.3' E

k - A

BOOK # 05 QUESTION # 01089

At 1830 zone time, on 6 April 1981, your DR position is LAT 26°33.0' N, LONG 64°31.0' W. You are steering course 082° T at a speed of 16.0 knots. Three stars are observed and the following information is determined:

STAR	ZONE TIME	STAR'S GHA	OBSERVED ALTITUDE (Ho)	STAR'S DECLINATION
Sirius	1836	73°02.7'	46°00.5'	S 16°41.7'
Regulus	1842	23°46.9'	49°07.2'	N 12°03.5'
Mirfak	1900	129°24.3'	35°50.5'	N 49°47.7'

What are the latitude and longitude of your 1900 zone time running fix?

- A. LAT 26°20.1' N, LONG 64°19.4' W
- B. LAT 26°23.7' N, LONG 64°29.3' W
- C. LAT 26°28.4' N, LONG 64°32.1' W
- D. LAT 26°32.5' N, LONG 64°27.1' W

k - D

BOOK # 05 QUESTION # 01090

At 0450 zone time, on 25 June 1981, your DR position is LAT 21°26.0' N, LONG 160°24.5' W. You are steering course 100° T at a speed of 10 knots. Three stars are observed at intervals of 12 minutes. Given the following information, determine your position at 0514 zone time.

STAR	ZONE TIME	STAR'S GHA	OBSERVED ALTITUDE (Ho)	STAR'S DECLINATION
Mirfak	0450	100°25.9'	35°27.4'	N 49°47.5'
Fomalhaut	0502	169°59.9'	38°01.3'	S 29°43.1'
Altair	0514	219°39.9'	31°39.5'	N 8°49.1'

- A. LAT 21°27.0' N, LONG 160°17.0' W
- B. LAT 21°25.0' N, LONG 160°18.0' W
- C. LAT 21°22.0' N, LONG 160°17.0' W
- D. LAT 21°20.0' N, LONG 160°15.5' W

k - B

BOOK # 05 QUESTION # 01091

On 10 August 1981, your 0430 ZT position is LAT 29°56.7' S, LONG 139°11.0' E. Your course is 321° T, speed 18.2 knots. Three stars are observed and the following information determined:

	ZONE				
STAR	TIME	GHA	DECLINATION	OBSERVED	ALT. (Ho)
Fomalhaut	0452	272°03.3'	S 29°43.1'	46°05.3'	
Canopus	0459	162°05.5'	S 52°41.0'	41°48.9'	
Achernar	0510	236°28.2'	S 57°19.6'	60°26.5'	

What is the 0500 position of your vessel?

- A. LAT 29°46.0' S, LONG 138°54.0' E
- B. LAT 29°49.2' S, LONG 138°57.0' E
- C. LAT 29°56.0' S, LONG 139°03.8' E
- D. LAT 30°07.5' S, LONG 138°55.2' E

k - B

BOOK # 05 QUESTION # 01092

On 3 April 1981, your vessel's 1400 ZT DR position is LAT 20°08.0' N, LONG 147°45.0' W. You are steering course 023° T at 18.0 knots. Three stars are observed for evening sights and the following data determined:

	ZONE				
STAR	TIME	GHA	DECLINATION	OBSERVED	ALT. (Ho)
Capella	1848	195°07.8'	N 45°58.8'	44°10.2'	
Sirius	1903	167°06.2'	S 16°41.7'	46°52.9'	
Aldebaran	1912	201°44.0'	N 16°28.2'	38°17.9'	

What is your 1900 position?

- A. LAT 21°39.8' N, LONG 146°59.7' W
- B. LAT 21°40.0' N, LONG 147°03.2' W
- C. LAT 21°41.8' N, LONG 147°05.5' W
- D. LAT 21°41.8' N, LONG 147°01.5' W

k - B

BOOK # 05 QUESTION # 01093

On 22 November 1981, your vessel is enroute from Accra, Ghana, to Montevideo, Uruguay, on course 240° T and making a speed of 15.0 knots. Your 1129 DR position is LAT 28°25.0' S, LONG 42°40.0' W. Three bodies are observed and the following information determined:

	ZONE	BODY'S		OBSERVED	
BODY	TIME	GHA	DECLINATION	ALTITUDE	(Ho)
Venus	1129	350°00.1'	S 25°41.8'	43°26.8'	
Moon	1134	082°54.7'	S 01°46.5'	43°15.0'	
Sun	1137	042°38.0'	S 20°11.7'	81°44.7'	

What is the position of your vessel at 1137 ZT?

- A. LAT 28°27.0' S, LONG 42°38.0' W
- B. LAT 28°25.2' S, LONG 42°40.0' W
- C. LAT 28°25.0' S, LONG 42°36.0' W
- D. LAT 28°23.4' S, LONG 42°42.0' W

k - A

BOOK # 05 QUESTION # 01094

On 12 October 1981, your vessel is on course 081° T, speed 20 knots. Your 1800 zone time DR position is LAT 26°11.0' S, LONG 77°18.0' E. Three stars are observed and the following information is determined:

	ZONE	BODY'S	BODY'S	OBSERVED
STAR	TIME	GHA	DECLINATION	ALTITUDE (Ho)
Vega	1810	299°26.6'	N 38°46.3'	23°08.7'
Fomalhaut	1823	237°37.0'	S 29°43.2'	50°23.9'
Antares	1835	337°43.4'	S 26°23.4'	40°53.1'

What is the position of your vessel at 1835?

- A. LAT 26°05.5' S, LONG 77°14.5' E
- B. LAT 26°07.5' S, LONG 77°34.0' E
- C. LAT 26°09.0' S, LONG 77°27.5' E
- D. LAT 26°12.0' S, LONG 77°31.0' E

k - D

BOOK # 04 QUESTION # 01095

On 25 October 1981, your 0430 ZT DR position is LAT 24°48.0' N, LONG 65°21.1' W. Your vessel is on course 030° T at a speed of 18 knots. Three stars are observed and the following information is determined:

	ZONE	BODY'S	BODY'S	OBSERVED
STAR	TIME	GHA	DECLINATION	ALTITUDE (Ho)
Mirfak	0430	110°23.1'	N 49°47.7'	47°20.8'
Regulus	0440	011°48.3'	N 12°03.5'	37°49.9'
Sirius	0455	066°19.5'	S 16°41.3'	48°25.3'

What is the position of your vessel at 0455?

- A. LAT 24°53.0' N, LONG 65°28.3' W
- B. LAT 24°53.0' N, LONG 65°12.5' W
- C. LAT 24°54.0' N, LONG 65°17.3' W
- D. LAT 25°03.0' N, LONG 65°18.5' W

k - A

BOOK # 05 QUESTION # 01096

On 24 October 1981, your 0100 DR position is LAT 27°42' N, LONG 158°35' E. You are on course 085° T at a speed of 12 knots. The following bodies are observed and information determined:

BODY	ZONE	OBSERVED			DECLINATION
	TIME	GHA	ALTITUDE(Ho)		
Rigel	0558	238°11.2'	38°39.5'	S	08°13.2'
Capella	0600	238°16.1'	55°15.1'	N	45°58.7'
Denebola	0604	141°05.0'	33°39.8'	N	14°40.6'

What are the latitude and longitude of your 0700 zone time running fix?

- A. LAT 27°48.8' N, LONG 160°12.5' E
- B. LAT 27°52.5' N, LONG 160°18.2' E
- C. LAT 27°56.0' N, LONG 159°47.3' E
- D. LAT 27°58.4' N, LONG 159°43.5' E

k - C

BOOK # 05 QUESTION # 01097

On 9 November 1981, your 0400 DR position is LAT 18°24.0' S, LONG 97°36.0' W. You are on course 138° T at a speed of 16 knots. The following bodies are observed and information determined:

BODY	ZONE	OBSERVED			DECLINATION
	TIME	GHA	ALTITUDE (Ho)		
Canopus	0510	120°08.7'	51°31.4'	S	52°40.9'
Aldebaran	0512	147°49.1'	29°07.8'	N	16°28.4'
Regulus	0514	065°11.7'	45°57.5'	N	12°03.5'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 18°15.0' S, LONG 98°52.5' W
- B. LAT 18°45.0' S, LONG 97°06.8' W
- C. LAT 18°52.5' S, LONG 97°10.6' W
- D. LAT 19°15.5' S, LONG 98°08.8' W

k - B

BOOK # 05 QUESTION # 01098

On 19 September 1981, your 0300 zone time DR position is LAT 24°35' N, LONG 88°40' W. You are on course 288° T at a speed of 14 knots. The following bodies are observed and information determined:

BODY	ZONE	OBSERVED			DECLINATION
	TIME	GHA	ALTITUDE (Ho)		
Regulus	0530	018°56.5'	22°45.2'		N 12°03.6'
Sirius	0532	070°12.2'	44°30.6'		S 16°41.3'

Hamal 0536 140°44.1' 43°16.5' N 23°22.5'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 24°47.4' N, LONG 89°15.0' W
- B. LAT 24°52.5' N, LONG 89°22.4' W
- C. LAT 24°59.5' N, LONG 89°28.6' W
- D. LAT 25°06.0' N, LONG 90°37.0' W

k - B

BOOK # 05 QUESTION # 01099

On 6 April 1981, your 0300 DR position is LAT 27°42' S, LONG 128°58' W. You are on course 097° T at a speed of 18 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		DECLINATION
		GHA	ALTITUDE(Ho)	
Fomalhaut	0530	203°08.6'	25°17.5'	S 29°43.4'
Rigil Kent.	0536	194°12.4'	35°26.6'	S 60°45.3'
Vega	0540	135°43.2'	23°06.8'	N 38°45.7'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 27°15.5' S, LONG 128°12.4' W
- B. LAT 27°44.7' S, LONG 127°47.5' W
- C. LAT 27°52.4' S, LONG 127°49.4' W
- D. LAT 28°15.2' S, LONG 128°11.6' W

k - B

BOOK # 05 QUESTION # 01021

On 30 March 1981, your 0145 DR position is LAT 29°30' S, LONG 122°45' E. You are on course 055° T at a speed of 22 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		DECLINATION
		GHA	ALTITUDE(Ho)	
Fomalhaut	0545	169°18.5'	32°50.8'	S 29°43.4'
Altair	0550	217°14.7'	48°27.2'	N 8°48.9'
Spica 0600		316°09.6'	13°34.0'	S 11°03.8'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 28°24.6' S, LONG 124°21.4' E
- B. LAT 28°39.9' S, LONG 124°18.6' E
- C. LAT 28°41.5' S, LONG 124°41.5' E
- D. LAT 29°20.1' S, LONG 123°41.0' E

k - B

BOOK # 05 QUESTION # 01101

On 21 December 1981, your 0300 DR position is LAT 21°24.0' N, LONG 65°15.0' W. You are on course 122° T at a speed of 18 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Antares	0625	359°05.3'	11°17.1'	S 26°23.4'
Pollux	0628	130°51.1'	29°35.4'	N 28°04.2'
Vega	0630	328°20.1'	08°18.7'	N 38°46.1'

What are the latitude and longitude of your 0700 zone time running fix?

- A. LAT 20°28.9' N, LONG 64°07.9' W
- B. LAT 20°54.6' N, LONG 65°51.5' W
- C. LAT 21°12.0' N, LONG 64°51.0' W
- D. LAT 21°47.5' N, LONG 65°10.6' W

k - A

BOOK # 05 QUESTION # 01102

On 19 November 1981, your 0200 zone time DR position is LAT 18°41' N, LONG 150°37' E. You are on course 014° T at a speed of 18 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Arcturus	0532	137°03.2'	22°34.9'	N 19°16.7'
Suhail	0537	15°10.4'	26°45.6'	S 43°21.2'
Capella	0538	273°25.1'	31°43.5'	N 45°58.7'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 19°45.4' N, LONG 150°52.6' E
- B. LAT 19°42.8' N, LONG 150°56.9' E
- C. LAT 19°41.2' N, LONG 150°46.3' E
- D. LAT 19°39.3' N, LONG 150°51.8' E

k - A

BOOK # 05 QUESTION # 01103

On 25 August 1981, your 0300 zone time DR position is LAT 21°28.0' N, LONG 167°48.0' E. You are on course 248° T at a speed of 12 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Rigel	0512	167°31.4'	51°37.7'	S 8°13.2'

Diphda	0518	236°46.1'	31°52.1'	S 18°05.2'
Acamar	0524	204°33.0'	27°40.9'	S 40°22.5'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 20°52.4' N, LONG 167°32.1' E
- B. LAT 20°57.1' N, LONG 167°01.0' E
- C. LAT 20°59.5' N, LONG 166°54.8' E
- D. LAT 21°06.0' N, LONG 167°10.9' E

k - B

BOOK # 05 QUESTION # 01104

On 19 November 1981, your 0200 zone time DR position is LAT 20°29.0' N, LONG 150°21.3' E. You are on course 136° T at a speed of 18 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		DECLINATION
		GHA	ALTITUDE(Ho)	
Regulus	0530	198°24.3'	77°21.3'	N 12°03.4'
Arcturus	0532	137°03.2'	22°47.9'	N 19°16.7'
Suhail	0537	215°10.4'	26°44.9'	S 43°21.2'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 19°30.1' N, LONG 151°06.0' E
- B. LAT 19°31.7' N, LONG 151°04.9' E
- C. LAT 19°33.0' N, LONG 151°10.0' E
- D. LAT 19°35.8' N, LONG 151°13.6' E

k - C

BOOK # 05 QUESTION # 01105

On 28 May 1981, your 0200 DR position is LAT 19°16.5' S, LONG 119°24.0' W. You are on course 107° T at a speed of 18 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		DECLINATION
		GHA	ALTITUDE(Ho)	
Diphda	0524	076°20.5'	50°34.8'	S 18°05.4'
Antares	0530	201°26.0'	14°16.9'	S 26°23.4'
Deneb	0538	140°18.4'	22°00.3'	N 45°12.6'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 19°43.0' S, LONG 117°54.0' W
- B. LAT 19°48.2' S, LONG 118°04.5' W
- C. LAT 20°07.5' S, LONG 117°32.0' W
- D. LAT 20°17.1' S, LONG 118°06.0' W

k - A

BOOK # 05 QUESTION # 01106

On 23 January 1981, your 0200 DR position is LAT 18°32.5' N, LONG 135°14.0' E. You are on course 064° T at a speed of 15 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Vega	0538	152°32.3'	26°05.5'	N 38°45.9'
Regulus	0542	280°45.8'	35°05.8'	N 12°03.5'
Hadar	0546	222°59.5'	10°32.1'	S 60°16.6'

What are the latitude and longitude of your 0600 ZT running fix?

- A. LAT 18°58.5' N, LONG 136°10.1' E
- B. LAT 19°08.4' N, LONG 136°06.5' E
- C. LAT 19°14.0' N, LONG 136°04.8' E
- D. LAT 19°45.5' N, LONG 137°50.5' E

k - C

BOOK # 05 QUESTION # 01107

On 16 April 1981, your 0200 zone time DR position is LAT 17°18' S, LONG 168°46' E. You are on course 236° T at a speed of 16 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Fomalhaut	0523	133°27.1'	35°40.4'	S 29°43.4'
Peacock	0527	172°33.9'	48°28.6'	S 56°47.6'
Antares	0531	232°32.3'	51°43.9'	S 26°23.4'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 17°54.9' S, LONG 167°48.7' E
- B. LAT 17°55.6' S, LONG 167°45.1' E
- C. LAT 17°56.8' S, LONG 167°52.4' E
- D. LAT 18°00.4' S, LONG 167°49.2' E

k - D

BOOK # 05 QUESTION # 01108

On 19 January 1981, your 0300 zone time DR position is LAT 22°13' N, LONG 40°19' W. You are on course 297° T at a speed of 17 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION

Vega	0533	327°50.1'	27°24.7'	N 38°45.9'
Spica	0543	48°21.6'	54°51.6'	S 11°03.7'
Dubhe	0552	86°01.1'	41°08.9'	N 61°51.0'

What are the latitude and longitude of your 0545 ZT running fix?

- A. LAT 22°28.5' N, LONG 41°03.0' W
- B. LAT 22°30.3' N, LONG 41°00.2' W
- C. LAT 22°31.1' N, LONG 42°58.6' W
- D. LAT 22°33.0' N, LONG 42°55.9' W

k - A

BOOK # 05 QUESTION # 01109

On 5 May 1981, your 1600 zone time DR position is LAT 17°28' S, LONG 143°39' E. You are on course 316° T at a speed of 17 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Avoir	1727	209°18.2'	47°24.4'	S 59°27.3'
Regulus	1732	184°14.7'	46°35.2'	N 12°03.6'
Betelgeuse	1738	249°03.6'	49°41.5'	N 7°24.1'

What are the latitude and longitude of your 1800 zone time running fix?

- A. LAT 17°05.2' S, LONG 143°11.4' E
- B. LAT 17°07.8' S, LONG 143°17.5' E
- C. LAT 17°08.2' S, LONG 143°07.9' E
- D. LAT 17°09.7' S, LONG 143°10.1' E

k - A

BOOK # 05 QUESTION # 01110

On 19 November 1981, your 0300 zone time DR position is LAT 19°23' N, LONG 151°37' E. You are on course 293° T at a speed of 17 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Mars	0525	180°59.9'	60°05.5'	N 07°05.2'
Arcturus	0532	137°03.2'	22°39.0'	N 19°16.7'
Suhail	0537	215°10.4'	26°51.3'	S 43°21.2'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 19°38.5' N, LONG 150°41.6' E
- B. LAT 19°34.8' N, LONG 150°48.0' E
- C. LAT 19°32.9' N, LONG 150°52.3' E
- D. LAT 19°30.5' N, LONG 150°48.5' E

k - B

BOOK # 05 QUESTION # 01111

On 19 November 1981, your 1914 zone time DR position is LAT 30°12' S, LONG 122°15' E. You are on course 135° T at a speed of 15 knots. The following bodies are observed and information determined:

BODY	ZONE TIME	OBSERVED		
		GHA	ALTITUDE(Ho)	DECLINATION
Mars	0525	180°59.9'	60°05.5'	N 07°05.2'
Arcturus	0532	137°03.2'	22°39.0'	N 19°16.7'
Suhail	0537	215°10.4'	26°51.3'	S 43°21.2'

What are the latitude and longitude of your 0600 zone time running fix?

- A. LAT 19°38.5' N, LONG 150°41.6' E
- B. LAT 19°34.8' N, LONG 150°48.0' E
- C. LAT 19°32.9' N, LONG 150°52.3' E
- D. LAT 19°30.5' N, LONG 150°48.5' E

k - B

The following RDF questions (00-30) were reviewed and corrected on 4-14-92 by HLB and BJM.

BOOK # 05 QUESTION # 02501

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the east coast of South America your 1200 DR position is LAT 30°00.0' S, LONG 48°24.0' W. You are on a course of 044° T; speed 11.0 knots. At 1300 you take the following RDF bearings:

STATION	CABO DE SANTA	
	TRAMANDAI	MARTA GRANDE
LAT	30°00.6' S	28°36.2' S
LONG	50°08.2' W	48°48.9' W
RDF GYRO BEARING	263.5°	338.4°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	-2.5°	180°	+1.0°
045°	-1.0°	225°	+2.0°
090°	0.0°	270°	0.0°
135°	+0.5°	315°	-1.0°

The gyro error is 2° W.

What is your 1300 position based on the radio bearings?

- A. LAT 29°49.0' S, LONG 48°10.0' W
- B. LAT 29°51.2' S, LONG 48°15.2' W
- C. LAT 29°53.8' S, LONG 48°10.2' W
- D. LAT 29°55.1' S, LONG 48°13.1' W

k - A

BOOK # 05 QUESTION # 02502

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the east coast of South America, your 0800 DR position is LAT 26°30.0' S, LONG 46°36.8' W. You are on course 209° T; speed 14.0 knots. The gyro error is 1° W. At 0900 you take the following radio bearings:

	CABO DE SANTA		
STATION	ILHA MOELA	PARANAGUA	MARTA GRANDE
LAT	24°03.0' S	25°30.0' S	28°36.2' S
LONG	46°16.0' W	48°19.0' W	48°48.9' W
RDF GYRO BEARING	012.4°	310.2°	223.5°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	+1.0°	180°	-4.0°
045°	+4.0°	225°	-1.5°
090°	+1.0°	270°	0.0°
135°	-2.0°	315°	+0.5°

What is your 0900 position based on the radio bearings?

- A. LAT 26°38.7' S, LONG 46°42.0' W
- B. LAT 26°42.5' S, LONG 46°36.4' W
- C. LAT 26°43.0' S, LONG 46°47.0' W
- D. LAT 26°43.9' S, LONG 46°42.5' W

k - D

BOOK # 05 QUESTION # 02503

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage from Dakar to the Mediterranean, your 1410 DR position is LAT 26°30.0' N, LONG 15°50.0' W. You take 3 RDF bearings as follows:

	PUNTA		
STATION	LAS PALMAS	LANTAILLA	EL AAIUN
LAT	27°58.0' N	28°13.7' N	27°10.0' N
LONG	15°24.0' W	13°56.8' W	13°13.0' W
RDF GYRO BEARING	014.0°	043.3°	074.4°

At the time of the bearings, the vessel's heading was 055° pgc. Gyro error is 2° W. The RDF calibration table is:

CALIBRATION TABLE

RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	+3°	180°	-3°
045°	+1°	225°	-1°
090°	-1°	270°	0°
135°	-3°	315°	+1°

Based on the above information, what is your 1410 position?

- A. LAT 26°43.5' N, LONG 15°48.0' W
- B. LAT 26°38.4' N, LONG 15°37.2' W
- C. LAT 26°33.5' N, LONG 15°45.4' W
- D. LAT 26°26.3' N, LONG 15°47.6' W

k - C

BOOK # 05 QUESTION # 02504

A plotting sheet should be used to solve the following problem.

On a voyage from Capetown to Paranagua, Brazil, your 1114 zone time DR position is LAT 26°04.0' S, LONG 46°42.0' W. You take two RDF bearings as follows:

STATION	PARANAGUA	ILHA MOELA
LAT	25°30.0' S	24°03.0' S
LONG	48°19.0' W	46°16.0' W
RDF GYRO BEARING	297.6°	016.0°

The helmsman was on course 293° pgc at the time of the bearings. The gyro error is 3° W. The RDF calibration table is:

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	-3°	180°	+2°
045°	-2°	225°	0°
090°	+1°	270°	-1°
135°	+2°	315°	-2°

What is your position based on the RDF bearings?

- A. LAT 26°02.8' S, LONG 46°48.0' W
- B. LAT 26°07.0' S, LONG 46°41.8' W
- C. LAT 26°09.5' S, LONG 46°48.3' W
- D. LAT 26°08.3' S, LONG 46°40.3' W

k - A

BOOK # 05 QUESTION # 02505

Station positions may be plotted on the appropriate plotting sheet.

Your 1420 ZT DR position is LAT 27°46.0' S, LONG 46°12.0' W when you take RDF bearings as follows:

		CABO DE SANTA
STATION	ILHA MOELA	PARANAGUA MARTA GRANDE

LAT 24°03.0' S 25°30.0' S 28°36.2' S
 LONG 46°16.0' W 48°19.0' W 48°48.9' W
 RDF GYRO BEARING 359.1° 316.1° 240.8°

RDF CALIBRATION TABLE
 RELATIVE BEARING - CORRECTION

000° - 1°
 045° 0°
 090° + 1°
 135° + 3°
 180° + 1°
 225° 0°
 270° - 1°
 315° - 3°

The helmsman was on course 221° T at the time of the bearings, and there is no gyro error. What is your 1420 position based on the RDF bearings?

- A. LAT 27°20.4' S, LONG 46°13.2' W
- B. LAT 27°23.8' S, LONG 46°23.7' W
- C. LAT 27°24.2' S, LONG 46°33.6' W
- D. LAT 27°28.0' S, LONG 46°19.7' W

k - B

BOOK # 05 QUESTION # 02506

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the west coast of Africa, your 1430 DR position is LAT 28°37.5' N, LONG 11°40.0' W. You are on course 249° T; speed 19.8 knots. The gyro error is 2° E. At 1500 you take the following radio bearings:

PUNTA
 STATION EL AAIUN LANTAILLA ARRECIFE
 LAT 27°10.0' N 28°13.8' N 28°56.9' N
 LONG 13°13.0' W 13°56.8' W 13°37.0' W
 RDF GYRO BEARING 220.9° 258.0° 280.9°

CALIBRATION TABLE
 RELATIVE BEARING - CORRECTION RELATIVE BEARING - CORRECTION

000° - 1.0° 180° 0.0°
 045° + 2.0° 225° - 1.5°
 090° + 4.0° 270° - 4.0°
 135° + 2.5° 315° - 4.0°

What is your 1500 position based on the radio bearings?

- A. LAT 28°33.1' N, LONG 12°01.0' W
- B. LAT 28°34.0' N, LONG 11°53.5' W
- C. LAT 28°36.0' N, LONG 11°50.6' W
- D. LAT 28°36.3' N, LONG 11°58.8' W

k - B

BOOK # 05 QUESTION # 02507

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage enroute to the Canary Islands, your 2300 DR position is LAT 29°30' N, LONG 14°50' W. You are on course 122° T; speed 14.6 knots. The gyro error is 1° W. You take RDF bearings at the times indicated:

STATION	LA ISLETA	ARRECIFE	REINA SOPHIA
LAT	28°10.2' N	28°56.9' N	28°02.2' N
LONG	15°25.0' W	13°37.0' W	16°34.0' W
RDF GYRO BEARING	200.8°	113.5°	230.0°
TIME	2321	2335	2351

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	+ 2.0°	180°	- 0.5°
045°	+ 3.0°	225°	- 1.0°
090°	+ 1.5°	270°	- 2.5°
135°	+ 0.0°	315°	- 1.0°

What is your 2400 position based on the radio bearings?

- A. LAT 29°19.5' N, LONG 14°34.6' W
- B. LAT 29°24.4' N, LONG 14°37.2' W
- C. LAT 29°26.6' N, LONG 14°40.9' W
- D. LAT 29°22.3' N, LONG 14°42.1' W

k - D

BOOK # 05 QUESTION # 02508

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the west coast of Africa, your 1100 DR position is LAT 27°00' N, LONG 15°15' W. You are on course 062° T; speed 15.8 knots. The gyro error is 2° W. At 1200 you take the following radio bearings:

	PUNTA		
STATION	LAS PALMAS	LANTAILLA	EL AAIUN
LAT	27°58.0' N	28°13.8' N	27°10.0' N
LONG	15°24.0' W	13°56.8' W	13°13.0' W
RDF GYRO BEARING	341.1°	046.3°	091.6°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	- 2.0°	180°	+ 1.0°
045°	+ 1.0°	225°	- 0.5°
090°	+ 2.5°	270°	- 2.0°
135°	+ 3.0°	315°	- 3.0°

What is your 1200 position based on the radio bearings?

- A. LAT 27°05.5' N, LONG 14°58.2' W
- B. LAT 27°07.8' N, LONG 14°56.0' W
- C. LAT 27°10.0' N, LONG 15°01.0' W
- D. LAT 27°12.2' N, LONG 15°05.3' W

k - C

BOOK # 05 QUESTION # 02509

On a voyage from Cadiz, Spain to Capetown, your 0958 DR position is LAT 28°50' N, LONG 15°18' W, when you take 3 RDF bearings as follows:

PUNTA			
STATION	LANTAILLA	ARRECIFE	LA ISLETA
LAT 28°13.8' N	28°57.0' N	28°10.4' N	
LONG 13°56.8' W	13°37.0' W	15°25.0' W	
RDF GYRO BEARING	112.1°	081.9°	182.0°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	0°	180°	-1°
045°	-1°	225°	0°
090°	-3°	270°	+1°
135°	-2°	315°	+1°

At the time of the bearings, your vessel was heading 223° per gyrocompass. Your gyro error is 3° E. What is your position based on the RDF bearings?

- A. LAT 28°53.5' N, LONG 15°16.0' W
- B. LAT 28°49.2' N, LONG 15°20.8' W
- C. LAT 28°46.2' N, LONG 15°14.9' W
- D. LAT 28°46.4' N, LONG 15°27.6' W

k - B

BOOK # 05 QUESTION # 02510

A radiobeacon bears 205° relative. The vessel's heading is 138° per gyrocompass. Gyro error is 1° W. The RDF calibration curve is shown. What is the true bearing of the radiobeacon?

RELATIVE BEARING	CORRECTION
000°	+2°
045°	+1°
090°	-1°
135°	-1°
180°	-2°
225°	+1°
270°	+4°
315°	+3°

- A. 133°
- B. 204°

- C. 206²
D. 342²

k - D

BOOK # 05 QUESTION # 02511

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the west coast of Africa your 1615 DR position is LAT 29°06' N, LONG 15°22' W. You are on course 148° T; speed 13.5 knots. At 1615 you take the following RDF bearings:

STATION	PUNTA LANTAILLA	REINA SOPHIA
LAT	28°13.8' N	28°02.2' N
LONG	13°56.8' W	16°34.0' W
RDF GYRO BEARING	129.6°	225.4°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	-2.0°	180°	+1.0°
045°	-1.0°	225°	-0.5°
090°	+2.0°	270°	-1.5°
135°	+2.5°	315°	-2.5°

The gyro error is 1° W. What is your position based on the RDF bearings?

- A. LAT 29°05.1' N, LONG 15°18.6' W
B. LAT 29°07.8' N, LONG 15°19.2' W
C. LAT 29°10.3' N, LONG 15°26.2' W
D. LAT 29°12.8' N, LONG 15°14.9' W

k - B

BOOK # 05 QUESTION # 02512

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the west coast of Africa your 1615 DR position is LAT 29°06' N, LONG 15°22' W. You are on course 148° T; speed 13.5 knots. At 1615 you take the following RDF bearings:

STATION	PUNTA LANTAILLA	REINA SOPHIA
LAT	28°13.8' N	28°02.2' N
LONG	13°56.8' W	16°34.0' W
RDF GYRO BEARING	126.6°	228.2°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	-2.0°	180°	+1.0°
045°	-1.0°	225°	-0.5°
090°	+2.0°	270°	-1.5°
135°	+2.5°	315°	-2.5°

The gyro error is 1° W. What is your position based on the RDF bearings?

- A. LAT $28^{\circ}55.0'$ N, LONG $15^{\circ}10.0'$ W
- B. LAT $29^{\circ}01.8'$ N, LONG $15^{\circ}18.2'$ W
- C. LAT $29^{\circ}10.3'$ N, LONG $15^{\circ}26.2'$ W
- D. LAT $29^{\circ}12.8'$ N, LONG $15^{\circ}14.9'$ W

k - B

BOOK # 05 QUESTION # 02513

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the west coast of Africa your 0930 DR position is LAT $26^{\circ}58'$ N, LONG $14^{\circ}37'$ W. You are on course 223° T; speed 18.5 knots. At 0930 you take the following RDF bearings:

STATION	LAS PALMAS	EL AAIUN
LAT	$27^{\circ}58.0'$ N	$27^{\circ}10.0'$ N
LONG	$15^{\circ}24.0'$ W	$13^{\circ}13.0'$ W
RDF GYRO BEARING	320.7°	075.2°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	-4.0°	180°	$+2.5^{\circ}$
045°	-0.5°	225°	$+1.0^{\circ}$
090°	$+1.5^{\circ}$	270°	-0.5°
135°	$+2.0^{\circ}$	315°	-2.5°

The gyro error is 1° E. What is your position based on the RDF bearings?

- A. LAT $27^{\circ}01.3'$ N, LONG $14^{\circ}30.9'$ W
- B. LAT $26^{\circ}59.9'$ N, LONG $14^{\circ}37.7'$ W
- C. LAT $26^{\circ}54.8'$ N, LONG $14^{\circ}31.2'$ W
- D. LAT $26^{\circ}50.6'$ N, LONG $14^{\circ}27.6'$ W

k - C

BOOK # 05 QUESTION # 02514

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the west coast of Africa your 1351 DR position is LAT $27^{\circ}14'$ N, LONG $15^{\circ}52'$ W. You are on course 082° T; speed 13.7 knots. At 1351 you take the following RDF bearings:

STATION	REINA SOPHIA	EL AAIUN
LAT	$28^{\circ}02.2'$ N	$27^{\circ}10.0'$ N
LONG	$16^{\circ}34.0'$ W	$13^{\circ}13.0'$ W
RDF GYRO BEARING	322.0°	087.9°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	

000°	0.0°	180°	-0.5°
045°	+2.0°	225°	-2.0°
090°	+3.5°	270°	-1.5°
135°	+1.5°	315°	-1.0°

The gyro error is 2° E. What is your position based on the RDF bearings?

- A. LAT 27°03.9' N, LONG 16°00.2' W
- B. LAT 27°06.1' N, LONG 15°57.6' W
- C. LAT 27°09.2' N, LONG 15°54.8' W
- D. LAT 27°12.5' N, LONG 15°50.3' W

k - D

BOOK # 05 QUESTION # 02515

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the east coast of South America your 0708 DR position is LAT 25°29.0' S, LONG 46°15.0' W. You are on course 256° T; speed 22 knots. At 0708 you take the following RDF bearings:

STATION	ILHA MOELA	PARANAGUA
LAT	24°03.0' S	25°30.0' S
LONG	46°16.0' W	48°16.0' W
RDF GYRO BEARING	003.5°	270.4°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	+3.0°	180°	-4.0°
045°	0.0°	225°	-0.5°
090°	-1.0°	270°	0.0°
135°	-2.5°	315°	+1.5°

The gyro error is 1° W. What is your position based on the RDF bearings?

- A. LAT 25°24.6' S, LONG 46°27.2' W
- B. LAT 25°27.1' S, LONG 46°22.8' W
- C. LAT 25°29.1' S, LONG 46°15.6' W
- D. LAT 25°32.4' S, LONG 46°17.8' W

k - D

BOOK # 05 QUESTION # 02516

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the east coast of South America your 1419 DR position is LAT 29°38' S, LONG 47°53' W. You are on course 017° T; speed 14 knots. At 1419 you take the following RDF bearings:

STATION	CABO DE SANTA	
	TRAMANDAI	MARTA GRANDE

LAT 30°00.6' S 28°36.2' S
 LONG 50°08.2' W 48°48.9' W
 RDF GYRO BEARING 255.6° 317.7°

CALIBRATION TABLE

RELATIVE BEARING - CORRECTION	RELATIVE BEARING - CORRECTION
000° +1.5° 180° -1.5°	
045° +0.5° 225° 0.0°	
090° -0.5° 270° +3.0°	
135° -3.0° 315° +2.5°	

The gyro error is 1° E. What is your position based on the RDF bearings?

- A. LAT 29°37.8' S, LONG 47°58.1' W
- B. LAT 29°36.1' S, LONG 47°55.1' W
- C. LAT 29°30.1' S, LONG 47°49.6' W
- D. LAT 29°27.8' S, LONG 47°54.3' W

k - B

BOOK # 05 QUESTION # 02517

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the east coast of South America your 0723 DR position is LAT 29°28' S, LONG 48°17' W. You are on course 324° T; speed 16 knots. At 0723 you take the following RDF bearings:

CABO DE SANTA
 STATION TRAMANDAI MARTA GRANDE
 LAT 30°00.6' S 28°36.2' S
 LONG 50°08.2' W 48°48.9' W
 RDF GYRO BEARING 255.5° 336.1°

CALIBRATION TABLE

RELATIVE BEARING - CORRECTION	RELATIVE BEARING - CORRECTION
000° -4.0° 180° +0.5°	
045° -2.5° 225° +3.5°	
090° -0.5° 270° +1.0°	
135° 0.0° 315° -2.0°	

The gyro error is 2° W. What is your position based on the RDF bearings?

- A. LAT 29°31.0' S, LONG 48°13.6' W
- B. LAT 29°31.9' S, LONG 48°20.8' W
- C. LAT 29°33.3' S, LONG 48°17.9' W
- D. LAT 29°36.7' S, LONG 48°12.1' W

k - A

BOOK # 05 QUESTION # 02518

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the east coast of South America your 0927 DR position is LAT 25°20' S, LONG 46°40' W. You are on course 217° T; speed 18 knots. At 0940 you take the following RDF bearings:

STATION	ILHA MOELA	PARANAGUA
LAT	24°03.0' S	25°30.0' S
LONG	46°16.0' W	48°19.0' W
RDF GYRO BEARING	013.6°	261.7°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	-3.0°	180°	+4.0°
045°	-1.0°	225°	+2.0°
090°	0.0°	270°	0.0°
135°	+1.0°	315°	-0.5°

The gyro error is 2° E. What is your position based on the RDF bearings?

- A. LAT 25°17.0' S, LONG 46°38.8' W
- B. LAT 25°18.1' S, LONG 46°38.2' W
- C. LAT 25°19.3' S, LONG 46°43.3' W
- D. LAT 25°20.8' S, LONG 46°47.6' W

k - C

BOOK # 05 QUESTION # 02519

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the east coast of South America, your 1052 DR position is LAT 29°06.8' S, LONG 48°22.8' W. You are on course 056° T at 16.5 knots. The gyro error is 2° E. At 1102 the RDF gyro bearing of Cabo de Santa Marta Grande is 310.5°. At 1126 you change course to 000° T. At 1202 the RDF gyro bearing of Paranagua is 355°. What is your 1202 position based on these RDF bearings?

CABO DE SANTA		
STATION	MARTA GRANDE	PARANAGUA
LAT	28°36.2' S	25°30.0' S
LONG	48°48.9' W	48°19.0' W

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	+ 2°	180°	- 1°
045°	0°	225°	0°
090°	- 1°	270°	+ 2°
135°	- 3°	315°	+ 3°

- A. LAT 28°41.0' S, LONG 48°15.1' W
- B. LAT 28°46.0' S, LONG 48°15.0' W
- C. LAT 28°48.2' S, LONG 48°01.5' W
- D. LAT 28°50.1' S, LONG 48°07.8' W

k - B

BOOK # 05 QUESTION # 02520

A plotting sheet should be used to plot the radiobeacons and solve the following problem.

On a voyage along the west coast of Africa your 1315 DR position is LAT $29^{\circ}10'$ N, LONG $11^{\circ}49'$ W. You are on course 242° T; speed 13.5 knots. At 1315 you take the following RDF bearings:

STATION	ARRECIFE	EL AAIUN
LAT	$28^{\circ}56.9'$ N	$27^{\circ}10.0'$ N
LONG	$13^{\circ}37.0'$ W	$13^{\circ}13.0'$ W
RDF GYRO BEARING	265.5°	211.4°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	$+1.0^{\circ}$	180°	-2.0°
045°	-1.0°	225°	-1.5°
090°	-1.5°	270°	$+0.5^{\circ}$
135°	-2.0°	315°	$+4.0^{\circ}$

The gyro error is 0° . What is your position based on the RDF bearings?

- A. LAT $29^{\circ}05.8'$ N, LONG $11^{\circ}45.5'$ W
- B. LAT $29^{\circ}07.1'$ N, LONG $11^{\circ}52.6'$ W
- C. LAT $29^{\circ}08.6'$ N, LONG $11^{\circ}56.9'$ W
- D. LAT $29^{\circ}09.2'$ N, LONG $12^{\circ}00.3'$ W

k - A

BOOK # 05 QUESTION # 02366

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 2000 DR position is LAT $29^{\circ}23.5'$ N, LONG $87^{\circ}45.0'$ W. You are on course 062° T, speed 15 knots. At 2130 you take the following RDF bearings:

STATION	MOBILE POINT	SW PASS JETTY	CAPE SAN BLAS
LAT	$30^{\circ}13.6'$ N	$28^{\circ}59.4'$ N	$29^{\circ}40.2'$ N
LONG	$88^{\circ}01.4'$ W	$89^{\circ}08.5'$ W	$85^{\circ}21.4'$ W
RDF Gyro			
Bearing	313.7°	253.7°	085.5°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	$+1.0^{\circ}$	180°	-1.0°
045°	-1.0°	225°	0.0°
090°	-3.0°	270°	$+1.5^{\circ}$
135°	-1.0°	315°	$+3.0^{\circ}$

The gyro error is 0.5° W.

What is your position based on the RDF bearings?

- A. LAT 29°24.0' N, LONG 86°54.0' W
- B. LAT 29°28.5' N, LONG 87°06.4' W
- C. LAT 29°32.3' N, LONG 87°12.0' W
- D. LAT 29°33.1' N, LONG 87°18.0' W

k - C

BOOK # 05 QUESTION # 02522

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 1000 DR position is LAT 26°25.0' N, LONG 84°35.0' W. You are on course 222.5° T, speed 20 knots. At 1223 you take the following RDF bearings:

STATION	CAPE SAN BLAS	DRY TORTUGAS	EGMONT KEY
LAT 29°40.2' N	24°37.9' N	27°36.0' N	
LONG 85°21.4' W	82°55.3' W	82°45.7' W	
RDF Gyro			
Bearing	358.5°	113.4°	049.2°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	+1.0°	180°	-1.0°
045°	-1.0°	225°	0.0°
090°	-3.0°	270°	+1.5°
135°	-1.0°	315°	+3.0°

The gyro error is 2.5° E.

What is your position based on the RDF bearings?

- A. LAT 25°43.9' N, LONG 85°19.2' W
- B. LAT 25°45.2' N, LONG 85°10.0' W
- C. LAT 25°47.5' N, LONG 85°05.5' W
- D. LAT 25°53.5' N, LONG 85°22.0' W

k - A

BOOK # 05 QUESTION # 02523

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 0900 DR position is LAT 28°24.0' N, LONG 83°26.0' W. You are on course 248° T, speed 18 knots. At 0957 you take the following RDF bearings:

STATION	DRY TORTUGAS	YANKEETOWN	EGMONT KEY
LAT 24°37.9' N	28°58.0' N	27°36.0' N	
LONG 82°55.3' W	82°41.8' W	82°45.7' W	
RDF Gyro			
Bearing	164.5°	045.8°	124.4°

CALIBRATION TABLE				TABLE			
RELATIVE BEARING - CORRECTION				RELATIVE BEARING - CORRECTION			
000°	+1.0°	180°	-1.0°				
045°	-1.0°	225°	0.0°				
090°	-3.0°	270°	+1.5°				
135°	-1.0°	315°	+3.0°				

The gyro error is 3° E.

What is your position based on the RDF bearings?

- A. LAT 28°12.9' N, LONG 83°39.0' W
- B. LAT 28°14.0' N, LONG 83°20.4' W
- C. LAT 28°18.4' N, LONG 83°15.6' W
- D. LAT 28°24.1' N, LONG 83°40.0' W

k - A

BOOK # 05 QUESTION # 02524

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 1600 DR position is LAT 29°50.0' N, LONG 86°30.0' W. You are on course 139° T, speed 14 knots. At 1645 you take the following RDF bearings:

STATION	MOBILE POINT	CAPE SAN BLAS	SW PASS JETTY
LAT 30°13.6' N	29°40.2' N	28°59.4' N	
LONG 88°01.4' W	85°21.4' W	89°08.5' W	
RDF Gyro			
Bearing	301.9°	082.3°	259.4°

CALIBRATION TABLE				TABLE			
RELATIVE BEARING - CORRECTION				RELATIVE BEARING - CORRECTION			
000°	+1.0°	180°	-1.0°				
045°	-1.0°	225°	0.0°				
090°	-3.0°	270°	+1.5°				
135°	-1.0°	315°	+3.0°				

The gyro error is 1.5° W.

What is your position based on the RDF bearings?

- A. LAT 29°25.5' N, LONG 86°15.6' W
- B. LAT 29°31.4' N, LONG 86°20.4' W
- C. LAT 29°33.0' N, LONG 86°39.0' W
- D. LAT 29°45.0' N, LONG 86°37.7' W

k - C

BOOK # 05 QUESTION # 02525

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 1845 DR position is LAT 28°15.0' N, LONG 85°50.0' W. You are on course 297° T, speed 12 knots. At 1930 you take the following RDF bearings:

STATION	CAPE SAN BLAS	MOBILE POINT	SW PASS JETTY
LAT	29°40.2' N	30°13.6' N	28°59.4' N
LONG	85°21.4' W	88°01.4' W	89°08.5' W
RDF Gyro			
Bearing	031.8°	319.0°	282.4°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION			
000°	+1.0°	180°	-1.0°
045°	-1.0°	225°	0.0°
090°	-3.0°	270°	+1.5°
135°	-1.0°	315°	+3.0°

The gyro error is 1° W.

What is your position based on the RDF bearings?

- A. LAT 28°20.6' N, LONG 86°04.2' W
- B. LAT 28°22.5' N, LONG 86°07.0' W
- C. LAT 28°25.9' N, LONG 86°12.5' W
- D. LAT 28°26.3' N, LONG 86°13.0' W

k - B

BOOK # 05 QUESTION # 02526

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 1530 DR position is LAT 27°47.2' N, LONG 88°17.8' W. You are on course 041° T, speed 16 knots. At 1725 you take the following RDF bearings:

STATION	SW PASS JETTY	MOBILE POINT	CAPE SAN BLAS
LAT	28°59.4' N	30°13.6' N	29°40.2' N
LONG	89°08.5' W	88°01.4' W	85°21.4' W
RDF Gyro			
Bearing	298.7°	347.7°	054°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION			
000°	+1.0°	180°	-1.0°
045°	-1.0°	225°	0.0°
090°	-3.0°	270°	+1.5°
135°	-1.0°	315°	+3.0°

The gyro error is 1.5° W.

What is your position based on the RDF bearings?

- A. LAT 28°10.0' N, LONG 87°28.0' W
- B. LAT 28°13.0' N, LONG 87°25.0' W
- C. LAT 28°15.0' N, LONG 87°35.0' W
- D. LAT 28°17.0' N, LONG 87°42.0' W

k - C

BOOK # 05 QUESTION # 02527

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 1845 DR position is LAT 30°34.5' N, LONG 86°15.5' W. You are on course 216° T, speed 8 knots. At 2245 you take the following RDF bearings:

STATION	SW PASS JETTY	MOBILE POINT	CAPE SAN BLAS
LAT 28°59.4' N	30°13.6' N	29°40.2' N	
LONG 89°08.5' W	88°01.4' W	85°21.4' W	
RDF Gyro			
Bearing	247.2°	269.5°	148.1°

CALIBRATION TABLE			
RELATIVE BEARING - CORRECTION		RELATIVE BEARING - CORRECTION	
000°	+1.0°	180°	-1.0°
045°	-1.0°	225°	0.0°
090°	-3.0°	270°	+1.5°
135°	-1.0°	315°	+3.0°

The gyro error is 0.5° W.

What is your position based on the RDF bearings?

- A. LAT 30°18.5' N, LONG 85°30.1' W
- B. LAT 30°19.5' N, LONG 85°47.0' W
- C. LAT 30°21.7' N, LONG 85°56.4' W
- D. LAT 30°24.5' N, LONG 86°01.8' W

k - B

BOOK # 05 QUESTION # 02528

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 0825 DR position is LAT 29°44.5' N, LONG 83°25.0' W. You are on course 221° T, speed 20 knots. At 0938 you take the following RDF bearings:

STATION	YANKEETOWN	CAPE SAN BLAS	EGMONT KEY
LAT 28°58.0' N	29°40.2' N	27°36.0' N	
LONG 82°41.8' W	85°21.4' W	82°45.7' W	
RDF Gyro			
Bearing	115.3°	279.9°	154.4°

CALIBRATION TABLE				TABLE			
RELATIVE BEARING - CORRECTION				RELATIVE BEARING - CORRECTION			
000°	+1.0°	180°	-1.0°				
045°	-1.0°	225°	0.0°				
090°	-3.0°	270°	+1.5°				
135°	-1.0°	315°	+3.0°				

The gyro error is 3° E.

What is your position based on the RDF bearings?

- A. LAT 29°10.5' N, LONG 83°29.6' W
- B. LAT 29°12.4' N, LONG 83°32.1' W
- C. LAT 29°18.8' N, LONG 83°18.8' W
- D. LAT 29°22.0' N, LONG 83°29.0' W

k - D

BOOK # 05 QUESTION # 02529

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

On a voyage in the Gulf of Mexico, your 0130 DR position is LAT 27°47.5' N, LONG 84°16.7' W. You are on course 099° T, speed 16.5 knots. At 0245 you take the following RDF bearings:

STATION	YANKEETOWN	CAPE SAN BLAS	EGMONT KEY
LAT	28°58.0' N	29°40.2' N	27°36.0' N
LONG	82°41.8' W	85°21.4' W	82°45.7' W
RDF Gyro			
Bearing	033.4°	323.3°	096.7°

CALIBRATION TABLE				TABLE			
RELATIVE BEARING - CORRECTION				RELATIVE BEARING - CORRECTION			
000°	+1.0°	180°	-1.0°				
045°	-1.0°	225°	0.0°				
090°	-3.0°	270°	+1.5°				
135°	-1.0°	315°	+3.0°				

The gyro error is 1° E.

What is your position based on the RDF bearings?

- A. LAT 27°39.5' N, LONG 83°15.4' W
- B. LAT 27°30.5' N, LONG 83°41.6' W
- C. LAT 27°42.9' N, LONG 83°30.6' W
- D. LAT 27°44.0' N, LONG 83°44.5' W

k - D

BOOK # 05 QUESTION # 02530

A plotting sheet may be used to plot the radiobeacons and solve the following problem.

You are on a voyage in the Gulf of Mexico. Your 2200 DR position is LAT 27°10.0' N, LONG 85°29.0' W. You are on course 029° T, speed 16.0 knots. At 2245 you take the following RDF bearings:

STATION YANKEETOWN EGMONT KEY DRY TORTUGAS

LAT 28°58.0' N 28°36.0' N 24°37.9' N

LONG 82°41.8' W 82°45.7' W 82°55.3' W

RDF Gyro

Bearing 055.9° 086.9° 146.2°

CALIBRATION TABLE

RELATIVE BEARING - CORRECTION RELATIVE BEARING - CORRECTION

000° +1.0° 180° -1.0°

045° -1.0° 225° 0.0°

090° -3.0° 270° +1.5°

135° -1.0° 315° +3.0°

The gyro error is 2° W.

What is your position based on the RDF bearings?

- A. LAT 27°17.9' N, LONG 85°08.4' W
- B. LAT 27°20.1' N, LONG 85°18.7' W
- C. LAT 27°22.2' N, LONG 85°21.0' W
- D. LAT 27°22.4' N, LONG 85°12.2' W

k - D

BOOK # 05 QUESTION # 09000

The following questions (8-16) are to be answered using chart 12221 TR, Chesapeake Bay Entrance, and supporting publications.

Your vessel is enroute from New York, NY, to Baltimore, MD. Your present course is 206° true, and your speed is 18 knots. Your vessel's draft is 29 feet, and your height of eye is 54 feet. Use 10° W variation where required.

8. At 0705 you obtained the following Loran readings:

9960-X-27091.2

9960-Y-41612.8

9960-Z-58744.2

What is your vessel's position?

- A. 37°20.4' N 75°30.2' W
- B. 37°20.8' N 75°29.9' W
- C. 37°21.3' N 75°29.5' W
- D. 37°21.2' N 75°30.4' W

k - B

9. At 0725 you determined your vessel's position to be $37^{\circ}15.5'$ N, $75^{\circ}33.2'$ W. Assuming that you make good your course of 206° true and a speed of 18 knots, at what time would you expect to be abeam of Cape Charles Lighted Bell Buoy "14"?

- A. 0750
- B. 0754
- C. 0758
- D. 0802

k - C

10. At about what time will you see Chesapeake Light if visibility is excellent?

- A. It is already visible at 0725.
- B. 0730
- C. 0737
- D. 0742

k - B

11. At 0741 you are still steering a course of 206° true, with a speed of 18 knots. At this time you observe Cape Charles Lighted Bell Buoy "14" bearing 222° true, Hog Island Lighted Bell Buoy "12" bearing 015° true and the Loran reading 9960-Z-58677.3. What were the set and drift experienced since 0725?

- A. 259° true at 3.2 knots
- B. 049° true at 2.5 knots
- C. 240° true at 1.9 knots
- D. 042° true at 3.3 knots

k - A

12. From your 0741 position, you wish to change course in order to pass 2.2 miles off Cape Charles Lighted Bell Buoy "14". Your engine speed is now 14.0 knots. You estimate the current to be 240° true at 1.8 knots. What is the true course to steer to make good the desired course?

- A. 179° true
- B. 185° true
- C. 191° true
- D. 197° true

k - C

13. At 0811 your vessel's position is $37^{\circ}04.9'$ N, $75^{\circ}39.7'$ W. You are steering a course of 220° true at a speed of 14.0 knots. At what time would you expect the buoys in the northeasterly traffic scheme to line up, if you do not correct for a southwesterly current of 1.8 knots?

- A. 0826
- B. 0831
- C. 0837
- D. 0846

k - C

14. At 0841 Chesapeake Light bears 164° true, Cape Charles Light bears 312° true, and Cape Henry Light bears 247° true. What was your course made good since 0811?

- A. 226° true
- B. 230° true
- C. 233° true
- D. 237° true

k - A

15. From your 0841 position, you are steering a course of 241° true to the northeasterly inbound channel entrance, your speed is now 15 knots. What is your ETA abeam of buoy "NCA" (LL#375)?

- A. 0850
- B. 0855
- C. 0901
- D. 0911

k - B

16. As you pass through the Chesapeake Bay Bridge and Tunnel, you take a bearing of 047° pgc along trestle C when it is in line. The helmsman reports the vessel's heading as 316° pgc and 329° psc. What is the deviation on that heading?

- A. 1° E
- B. 0°
- C. 1° W
- D. 9° W

k - C

The following questions (8-16) are to be answered using chart 13205 TR, Block Island Sound and Approaches, and supporting publications.

Your vessel is on a course of 048° true with a speed of 13.5 knots. Your draft is 39 feet and your height of eye is 58 feet.

8. At 2045 you obtained the following Loran readings:

9960-W-14844.0

9960-X-26128.0

9960-Y-43712.5

What is your vessel's position?

A. $40^{\circ}41.1'$ N, $72^{\circ}10.5'$ W

B. $40^{\circ}41.4'$ N, $72^{\circ}10.7'$ W

C. $40^{\circ}41.8'$ N, $72^{\circ}10.8'$ W

D. $40^{\circ}42.3'$ N, $72^{\circ}11.3'$ W

k - C

9. At what time would you expect to be abeam of Buoy "MP"?

A. 2240

B. 2244

C. 2248

D. 2252

k - C

10. At 2100 your position is $40^{\circ}44.1'$ N, $72^{\circ}07.6'$ W. From this position, at which time will Montauk Point Light become visible if the luminous range of the light is 8 miles?

A. 2215

B. 2221

C. 2227

D. 2235

k - B

11. At 2146 your position is $40^{\circ}51.3'$ N, $71^{\circ}59.2'$ W. If your engine speed has been 13 knots, what were the set and drift of the current you encountered since your 2100 position?

A. 278° true at 1.3 knots

B. 282° true at 1.7 knots

C. 290° true at 1.9 knots

D. 295° true at 1.5 knots

k - D

12. At 2146 if your fathometer is set on feet, what should be the approximate reading on your fathometer?

- A. 88 feet
- B. 105 feet
- C. 121 feet
- D. 166 feet

k - A

13. From your 2146 position, with a new engine speed of 12 knots, you wish to change course in order to pass southeast of Buoy "MP" at a distance of 2 miles. With a reported set of 320° true and a drift of 2 knots, which course should you steer to make good your desired course?

- A. 055° true
- B. 061° true
- C. 066° true
- D. 071° true

k - B

14. At 2310 Buoy "MP" bears 305° true with a radar range of 2.5 miles, and you obtained a Loran reading of 9960-Y-43823.3. From this position you change course to 005° true. Without any set and drift, what would be your predicted distance off Southwest Ledge Buoy "2" when it is on your starboard beam?

- A. 0.9 mile
- B. 1.1 miles
- C. 1.5 miles
- D. 1.9 miles

k - C

15. At 2357 your position is $41^{\circ}09.0'$ N, $71^{\circ}47.0'$ W and Montauk Point Light bears 216° true. You change to a course of 293° true and your speed is 14.5 knots. At 0012 Montauk Point Light bears 177° true. Which statement about your 0012 running fix is TRUE?

- A. You are being set to the north.
- B. The fathometer reading is about 14 fathoms.
- C. You are governed by the Inland Rules of the Road.
- D. The fathometer trace shows you passed over the 89 foot sounding.

k - B

16. At 0016 your position is $41^{\circ}10.3'$ N, $71^{\circ}53.0'$ W. You are steering a course of 296° true with no set and drift. At 0049 Race Rock Light is on your starboard beam. What was your speed made good from your 0016 position?

- A. 13.8 knots
- B. 14.4 knots
- C. 15.0 knots
- D. 15.6 knots

k - D

BOOK # 05 QUESTION # 09003

The following (8-16) questions are to be answered using chart 12354 TR, Long Island Sound - Eastern Part, and the supporting publications.

Your vessel is enroute to New Haven, CT. You are proceeding at a reduced speed of 9.8 knots on a course of 243° T. Your height of eye is 45 feet and your vessel's deep draft is 33 feet.

8. At 0930 you obtain a position from the following information: Race Rock Light bears 110° T at a range of 1.4 miles, and Goshen Point bears 330° T at a range of 3.3 miles. What are your present latitude and longitude?

- A. $41^{\circ}16.0'$ N, $72^{\circ}09.5'$ W
- B. $41^{\circ}15.1'$ N, $72^{\circ}04.6'$ W
- C. $41^{\circ}17.4'$ N, $72^{\circ}06.0'$ W
- D. $41^{\circ}14.6'$ N, $72^{\circ}03.0'$ W

k - B

9. At 1000 buoy "PI" is abeam to starboard a distance of 0.5 mile. From this position, with a set of 295° and a drift of 1.6 knots, what course must you steer to arrive at a point with Buoy "TE" one mile abeam to starboard?

- A. 247° T
- B. 249° T
- C. 251° T
- D. 253° T

k - A

10. You take a Loran-C fix at 1130 using the following lines:

9960-X-26319
9960-W-14880

The fathometer reads 81. Your position is _____.

- A. north of your intended track line
- B. $41^{\circ}09.4'$ N, $72^{\circ}22.6'$ W
- C. three miles southeast of Six Mile Reef Buoy "8A"
- D. $41^{\circ}08.5'$ N, $72^{\circ}27.3'$ W

k - D

11. At 1155 your vessel's position is LAT $41^{\circ}09.0'$ N, LONG $72^{\circ}34.4'$ W. If you make good a course of 282° T and a speed of 10.0 knots, when will you arrive at New Haven Harbor Lighted Bell Buoy "NH"?

- A. 1315
- B. 1320
- C. 1325
- D. 1330

k - C

12. From your 1155 position, you steer a course of 282° T at a speed of 9.5 knots. You obtain the following bearings:

1205: Falkner Island Light bears 318° T
 1225: Falkner Island Light bears 355° T

Your 1225 running fix is _____.

- A. north of your intended track
- B. 3.1 miles SSE of Falkner Island Light
- C. ahead of the DR position
- D. south of your intended track

k - D

13. At 1245 the loran readings obtained show your position to be LAT $41^{\circ}10.3'$ N, LONG $72^{\circ}44.2'$ W. You are steering a course of 284° T at an engine speed of 13.0 knots. At what time would you expect the New Haven Harbor Outer Range to be in line if you have a current setting 112° T at 1.2 knots?

- A. 1318
- B. 1323
- C. 1328
- D. 1343

k - B

14. At the time of your 1245 position, which statement is TRUE?

- A. Your fathometer should indicate a sounding of approximately 47 feet.

- B. Bradford Reef is 5.7 miles on the starboard bow.
- C. You are in a danger area.
- D. You must follow the International Rules of the Road.

k - A

15. After departing the New Haven terminals, your 1800 position puts the New Haven Harbor Lighted Bell Buoy "NH" bearing 130° T at a range of 0.2 mile. From this position you set a course to leave Stratford Shoal Middle Ground Light 1.0 mile off your starboard beam. Your speed is 12.5 knots. At 1845 you determine your position to be LAT $41^{\circ}05.5'$ N, LONG $73^{\circ}03.1'$ W. What were the set and drift of the current?

- A. 291° T at 0.5 knot
- B. 294° T at 0.8 knot
- C. 012° T at 0.6 knot
- D. 015° T at 0.9 knot

k - B

16. From your 1845 position, you desire to leave Stratford Shoal Middle Ground Light 1.0 mile off your starboard beam at 1900. Which course and speed would you order if you allow for a 2.0 knot current with a set of 180° T?

- A. 205° T at 9.2 knots
- B. 208° T at 11.4 knots
- C. 215° T at 9.5 knots
- D. 225° T at 11.5 knots

k - C

BOOK # 05 QUESTION # 09005

The following questions (8-16) are to be answered using chart 13205 TR, Block Island Sound and Approaches, and supporting publications.

Your vessel is on a course 090° True, and the engine is turning RPM's for 14 knots. Your vessel's draft is 37 feet and your height of eye is 56 feet.

8. At 1705 Race Rock Light bears 099° True; Orient Point Light bears 176° True; Bartlett Reef Light bears 083° True. What is your vessel's position?

- A. LAT $41^{\circ}15.0'$ N, LONG $72^{\circ}14.3'$ W
- B. LAT $41^{\circ}15.4'$ N, LONG $72^{\circ}16.6'$ W
- C. LAT $41^{\circ}15.9'$ N, LONG $72^{\circ}14.0'$ W
- D. LAT $41^{\circ}16.4'$ N, LONG $72^{\circ}14.2'$ W

k - C

9. If there is no set or drift, at what time would you be abeam of Bartlett Reef Light?

- A. 1719
- B. 1724
- C. 1729
- D. 1734

k - B

10. At 1718, Bartlett Reef Light bears 050° T at a distance of 1.5 miles. From this position, you change course to 128° T. At 1750 Race Rock Light bears 336° T, Little Gull Island Light bears 285° T, and Montauk Point Light bears 134° T. What were the set and drift of the current you encountered since 1718?

- A. 038° T at 1.4 knots
- B. 046° T at 1.7 knots
- C. 065° T at 1.7 knots
- D. 072° T at 0.9 knots

k - C

11. If your fathometer is set on fathoms, what should your fathometer read at 1750?

- A. 8.5 fathoms
- B. 10.2 fathoms
- C. 14.7 fathoms
- D. 51.0 fathoms

k - A

12. At 1756 you determined your vessel's position to be $41^{\circ}10.4'$ N, $71^{\circ}59.2'$ W. From this position, you wish to change course to head for a point 5 miles west of Block Island North Light. With a reported set of 050° T, a drift of 2.0 knots and turning RPM's for 14 knots, which course should you steer to make good your desired course?

- A. 070° T
- B. 075° T
- C. 080° T
- D. 085° T

k - C

13. At 1844 you obtained the following Loran readings:

9960-W-14607
9960-X-25962

9960-Y-43920

Which statement is TRUE?

- A. Watch Hill Point is abeam.
- B. You are governed by the Inland Rules of the Road.
- C. You are to the left (north) of your desired course line.
- D. Your vessel is approximately 8.7 miles off Sandy Point.

k - D

14. From your 1850 position of $41^{\circ}12.8'$ N, $71^{\circ}44.1'$ W, you change course to 060° T. If you make the course good, what will be your predicted distance off Point Judith Light when the Light bears 015° T?

- A. 1.2 miles
- B. 1.9 miles
- C. 2.7 miles
- D. 3.4 miles

k - C

15. You are making good a course of 060° T at a speed of 13.5 knots. At 1855 Block Island North Light bears 086° T; at 1910 Block Island North Light bears 108° T; and at 1930 the same light bears 184° T. Which statement is TRUE about your 1930 running fix position?

- A. You are on the edge of a cable area.
- B. The bottom is mud, sand, and clay.
- C. The wavy magenta lines to the north through east of your position are designated lobstering areas.
- D. Following a Loran-C reading of 9960-Y-43941 or more will keep you to the south of Point Judith Buoy "2".

k - A

16. At 1942 Point Judith bears 030° T and has a range of 3.6 miles and Sandy Point has a range of 5.3 miles. What was your speed made good from your 1850 position?

- A. 11.8 knots
- B. 13.0 knots
- C. 13.9 knots
- D. 14.5 knots

k - B

The following questions (8-16) are based upon chart 12221 TR, Chesapeake Bay Entrance, and the supporting publications.

It is July 12th and you are on a voyage to Baltimore. You are turning for 9.8 knots. The maximum draft is 18 feet. The gyro error is 2° E. Use a variation of 10° W where required. The visibility is obscured by patchy fog.

DEVIATION TABLE	
HEADING MAGNETIC	DEVIATION
315°	1.0° W
330°	0.5° W
345°	0.5° E
000°	2.0° E
015°	3.0° E
030°	1.5° E

8. At 2038 you are on course 272° T when you take the following loran readings:

9960-X-27087.2
9960-Y-41234.6
9960-Z-58573.6

Based on this fix, which statement is TRUE?

- A. You are inside a ten fathom depth curve.
- B. You are less than five miles from Chesapeake Light.
- C. You are 0.6 mile north of a wreck.
- D. You are inside the contiguous zone.

k - A

9. What is your ETA off Chesapeake Bay Entrance Buoy "CB" at the entrance to the inbound lane of the traffic separation scheme?

- A. 2058
- B. 2104
- C. 2109
- D. 2115

k - A

10. Your ETA at Chesapeake Bay Bridge and Tunnel between trestles B + C is 2300. If your engine speed is 9.8 knots, what will be your approximate speed over the ground, at that time, allowing for the predicted current?

- A. 7.0 knots
- B. 8.2 knots
- C. 11.4 knots
- D. 12.7 knots

k - D

11. At buoy "CB" you change course to follow the inbound traffic lane. What is the course to steer per gyro compass if you correct your heading for a current of 315° at 1.0 knot and allow 3° leeway for northeasterly winds?

- A. 297° pgc
- B. 299° pgc
- C. 302° pgc
- D. 305° pgc

k - C

12. At 2216 CBJ Buoy is close abeam to port. Your lookout reports several sound signals with their relative bearings. Which would you judge to be coming from a vessel?

- A. A bell, broad on the port bow
- B. A whistle, broad on the starboard beam
- C. A bell, dead ahead
- D. A gong, two points on the starboard quarter

k - B

13. As you enter Chesapeake Bay, visibility improves. At 2235 you are between Chesapeake Channel Buoys "5" and "6" in the 41 foot dredged section of Chesapeake Channel. At that time, you change course to pass between buoy "9" and "10". If bouys "11" and "12" are extinguished, your best leading light to keep you in deep water in the Chesapeake Channel, as you approach the Chesapeake Bay Bridge and Tunnel, would be _____.

- A. fixed red light on trestle "C"
- B. fixed green light on trestle "B"
- C. fixed red light on trestle "B"
- D. Thimble Shoal Light

k - B

14. At 2306, as you pass through Trestle "C", you take a gyro bearing of the trestle when it is in line. The bearing is 049.5° . What is the gyro error?

- A. 0°
- B. 1.5° E
- C. 1.0° W
- D. 2.5° W

k - A

15. As you proceed up York Spit Channel, what are the three base courses that you must steer to conform to the channel, if steering by standard magnetic compass?

- A. 337.5°, 359.5°, 028.0°
- B. 337.5°, 357.5°, 026.0°
- C. 324.0°, 352.5°, 009.5°
- D. 340.0°, 000.5°, 025.0°

k - D

16. You are abeam of bouy "18" at 2325. What is your ETA at Baltimore if you average 9.5 knots?

- A. 1342
- B. 1400
- C. 1424
- D. 1456

k - B

BOOK # 05 QUESTION # 09007

The following questions (8-16) are to be answered using chart 12354 TR, Long Island Sound - Eastern Part, and the supporting publications.

You are turning for 12.7 knots. The deep draft is 16 feet. The gyro error is 2° W. The variation is 14° W.

DEVIATION TABLE
HEADING MAG DEVIATION

045°	3.0° E
060°	3.0° E
075°	1.5° E
090°	.5° W

8. At 2127 you take the following round of bearings:

Old Field Point Light	224.0° pgc
Middle Ground Light	320.5° pgc
Stratford Point Light	348.0° pgc

Based on the above fix, which statement is TRUE?

- A. At 2127, your fathometer reads about 17 fathoms.
- B. You are south of Mt. Misery Shoal.
- C. By following loran line 9960-Y-43950, you will have safe water to the eastern tip of Long Island.

D. You have lost sight of the red light at Old Field Point.

k - A

9. At 2127 you are on course 076° T. What is your ETA at a position where Twenty Eight Foot Shoal Lighted Bell Buoy is abeam to port?

- A. 2316
- B. 2324
- C. 2332
- D. 2345

k - C

10. At 2200 you take the following loran readings:

9960-W-15064.5

9960-Y-43954.8

Which statement is TRUE?

- A. The current is flooding.
- B. You are being set to the left of the track.
- C. The set is towards the southwest.
- D. The drift is .6 knot.

k - B

11. You alter course to make good 076° T from your 2200 fix, and estimate you will make 13.6 knots over the ground. If the visibility is 5.5 miles, what is the earliest time you will sight Falkner Island Light? (nominal range 13 miles)

- A. The light is visible at 2200
- B. 2221
- C. 2230
- D. You will not sight the light

k - C

12. At 2214 you receive a "Securite" call requesting you to remain at least 2 miles away from underwater work taking place at LAT 41°07.8' N, LONG 72°34.6' W. If you change course at 2220 and allow 3° leeway for southerly winds which course will you steer per gyrocompass to comply with this request? No allowance made for current.

- A. 079° pgc
- B. 082° pgc
- C. 085° pgc
- D. 088° pgc

k - D

13. At 2236 you take the following loran readings:

9960-W-14994.6
9960-X-26455.2
9960-Y-43949.0

What was the speed made good along the track line since your 2200 fix?

- A. 12.7 knots
- B. 13.5 knots
- C. 13.9 knots
- D. 14.2 knots

k - B

14. At 2310 you change course to make good 068° T. A radar speed check using Twenty Eight Foot Shoal Buoy indicates your speed over the ground is 13.6 knots. At 2325 Horton Point Light bears 061° relative. At 2341 the same light bears 126° relative. At each bearing, the helmsman reported that the ship's head was 070° pgc. What is the position of your 2341 running fix?

- A. LAT $41^{\circ}07.9'$ N, LONG $72^{\circ}25.9'$ W
- B. LAT $41^{\circ}08.3'$ N, LONG $72^{\circ}25.8'$ W
- C. LAT $41^{\circ}08.5'$ N, LONG $72^{\circ}25.6'$ W
- D. LAT $41^{\circ}08.8'$ N, LONG $72^{\circ}25.2'$ W

k - C

15. At 2342 the gyro alarm sounds and you commence steering by standard magnetic compass. If you allow 3° leeway for southerly winds and do not correct for any existing current, what is the course to steer by standard magnetic compass to make good 068° T?

- A. 054.0°
- B. 079.5°
- C. 081.0°
- D. 084.5°

k - D

16. At 2350 the gyro is restored to service. At 0016 the visibility improves. At 0028 you sight Bartlett Reef Light in line with New London Harbor West Entrance Light bearing 039° pgc. What is the gyro error?

- A. 2° E
- B. 0°

- C. 2° W
- D. 4° W

k - A

BOOK # 05 QUESTION # 09009

The following questions (8-16) are to be answered using chart 13205 TR, Block Island Sound and Approaches, and the supporting publications.

Use a variation of 14° W and a gyro error of 3° W when required. There are fog patches. You are turning for 12.1 knots. Your draft is 22 feet. The deviation table is shown below.

DEVIATION TABLE	
HDG. MAG	DEV.
180°	2.5° E
195°	2.0° E
210°	1.0° E
225°	0.5° W

8. At 2009 you are leaving New London Harbor with buoy "2" close abeam to port. What is the true course to the Race that will leave Race Rock Light 0.5 mile abeam to port?

- A. 156°
- B. 160°
- C. 164°
- D. 168°

k - C

9. At 2016 you sight N. Dumpling Light in line with Latimer Reef Light (Fl 6 sec, 55 ft) bearing 079° pgc. At the time of the bearing the helmsman reported he was steering 164° pgc and 172° per standard magnetic compass. What is the deviation for that heading?

- A. 3° E
- B. 1° E
- C. 5° W
- D. 2° W

k - A

10. At which point in the voyage is your vessel bound by the International Rules of the Roads (COLREGS)?

- A. At the mouth of New London Harbor
- B. Upon entering Block Island Sound
- C. After crossing the line of the Territorial Sea

D. After passing between Montauk Point and Lewis Point on Block Island

k - B

11. You will pass through the Race at approximately the time of maximum ebb current. As you approach the Race from New London, you should expect to be set _____.

- A. to the left of the track line
- B. to the right of the track line
- C. forward along the track line
- D. towards New London along the track line

k - A

12. At 2030 you take the following radar ranges:

Race Rock Light	2.1 miles
Latimer Reef Light	6.4 miles

If you estimate an average current of 080² T at 1.5 knots, which course will you steer per gyrocompass to leave Endeavor Shoals Gong Buoy bearing 270² T at 1.5 miles?

- A. 115²
- B. 118²
- C. 121²
- D. 124²

k - D

13. The light on Block Island Sound South Entrance Obstruction Buoy "BIS" is reported extinguished. Which of the following will serve as a positive warning that you are being set onto the obstruction?

- A. Radar ranges to Southwest Point of less than 7.9 miles
- B. Soundings of less than 50 feet
- C. Shagwong Reef Lighted Bell Bouy "7SR" 3.1 miles off abeam
- D. Race Rock Light bearing 299² T and decreasing

k - D

14. At 2045 visibility decreases in fog, and at 2103 you take a round of RDF gyro bearings:

Montauk Point	174.5 ²
Little Gull Island	290.0 ²
Point Judith	059.5 ²

CALIBRATION TABLE

REL. BRG. - CORRECTION REL. BRG. - CORRECTION

000° - +1.0°	180° - -1.5°
045° - +2.5°	225° - -3.0°
090° - +0.5°	270° - -1.5°
135° - 0.0	315° - -0.5°

At the time of the bearings the helmsman reported that he was heading 121° pgc. What is the position of your 2103 fix?

- A. LAT 41°09.3' N, LONG 71°52.5' W
- B. LAT 41°09.1' N, LONG 71°52.2' W
- C. LAT 41°09.0' N, LONG 71°52.9' W
- D. LAT 41°08.8' N, LONG 71°52.5' W

k - A

15. You round Montauk Point and steer to make good 206° T. Speed is increased to 13.0 knots. The current, if any, is unknown. The visibility has improved and is estimated to be 5 miles. At 2144 Montauk Point Light bears 273° T. At 2202 the same light bears 320° T. Which statement concerning your 2202 running fix is TRUE?

- A. You are inside the lobster pot area.
- B. The fathometer reads about 12 fathoms.
- C. You are inside of the 90 foot curve.
- D. You are outside the boundary of the Territorial Seas.

k - B

16. At 2229 the gyro fails. What is the course to steer per standard magnetic compass to make good 206° T, if you allow 3° leeway for southeasterly winds?

- A. 187°
- B. 191°
- C. 217°
- D. 220°

k - C

BOOK # 05 QUESTION # 09011

The following questions (8-16) are to be answered using chart 13205 TR, Block Island Sound and Approaches, and the supporting publications.

On 7 September, you are approaching Block Island Sound from sea. Your vessel has a draft of 20 feet. Equipment on board your vessel includes gyrocompass, magnetic compass, depth finder, Loran-C, and radar.

8. At 1830 you obtained the following Loran-C readings:

9960-W-14820.0
9960-X-26097.0
9960-Y-43713.5

What is your vessel's position?

- A. LAT 40°41.0' N, LONG 72°06.0' W
- B. LAT 40°41.0' N, LONG 72°10.6' W
- C. LAT 40°42.5' N, LONG 72°07.1' W
- D. LAT 40°47.5' N, LONG 72°02.9' W

k - C

9. Your 1900 position is LAT 40°45.5' N, LONG 72°03.0' W. Your course is 046° T, and your engines are turning RPM's for 9 knots. At your 1939 DR position, what is the expected relative bearing of Montauk Point Light on the port bow?

- A. 024° relative
- B. 028° relative
- C. 032° relative
- D. 036° relative

k - B

10. At 2000 Montauk Point Light bears 010° T. At 2030 the loran reads 9960-Y-43785.7. Assuming that you are making good your course of 046° T and a speed of 9 knots, what is your 2030 running fix position?

- A. LAT 40°53.9' N, LONG 71°51.3' W
- B. LAT 40°54.2' N, LONG 71°50.2' W
- C. LAT 40°55.9' N, LONG 71°49.0' W
- D. LAT 40°56.7' N, LONG 71°48.1' W

k - B

11. At 2050 you obtain the following Loran-C readings:

9960-X-25945
9960-Y-43802
9960-W-14662

From this position, you change course in order to pass 1 mile due east of Montauk Point Lighted Whistle Buoy "MP". If there are no set and drift, what course must you steer?

- A. 024° T
- B. 028° T
- C. 032° T
- D. 036° T

k - B

12. At 2100 your position is LAT 40°58.5' N, LONG 71°46.0' W. You are proceeding north. At 2131 Montauk Point Light has a radar range of 5.1 miles and bears 284° T. Block Island Southeast Light has a radar range of 10.8 miles. What was the course made good from your 2100 position?

- A. 005° T
- B. 011° T
- C. 017° T
- D. 025° T

k - B

13. At 2155 Montauk Point Light bears 249° T, Watch Hill Point Light bears 335° T, and Block Island North Light bears 045° T. At this time, you wish to change course to 288° T. The current has a set of 355° T and a drift of 2.0 knots. If your vessel is turning RPM's for 9 knots, what course must you steer in order to make your desired course good?

- A. 276° T
- B. 280° T
- C. 284° T
- D. 288° T

k - A

14. Montauk Point Light has a radar range of 4.0 miles and bears 173° T at 2232. What is the depth of water below your keel?

- A. 27 feet
- B. 32 feet
- C. 37 feet
- D. 42 feet

k - A

15. Your 2239 position is LAT 41°08.5' N, LONG 71°53.3' W. You change course to 315° T, and you maintain RPM's for 9 knots. At 2329 Little Gull Island Light bears 253° T, Race Rock Light bears 309° T, and Watch Hill Point Light bears 058° T. What were the set and drift of the current you experienced from your 2239 position?

- A. 237° T at 0.3 knot
- B. 237° T at 0.7 knot
- C. 256° T at 0.5 knot
- D. 256° T at 0.8 knot

k - D

16. Which nautical chart would you use to navigate into New London, CT?

- A. 13209
- B. 13211
- C. 13212
- D. 13214

k - C

BOOK # 05 QUESTION # 09012

The following questions (8-16) are to be answered using chart 12221 TR, Chesapeake Bay Entrance, and supporting publications.

You are southbound along the coast on a course of 180° T, engine speed 14 knots. Your draft is 16 feet. Gyro error is 2° W.

8. At 2000 Loran readings give you the following information:

9960-X-27106
9960-Y-41639
9960-Z-58746

Your position is _____.

- A. $37^{\circ}35.0'$ N, $75^{\circ}32.2'$ W
- B. $37^{\circ}23.5'$ N, $75^{\circ}32.2'$ W
- C. $37^{\circ}03.5'$ N, $75^{\circ}32.2'$ W
- D. $37^{\circ}03.5'$ N, $75^{\circ}02.2'$ W

k - B

9. From your 2000 position you change course to 206° T. What time would you expect to be abeam of Hog Island Buoy "12"?

- A. 2021
- B. 2026
- C. 2031
- D. 2040

k - B

10. You should expect to pass how far off buoy "12"?

- A. 0.8 mile
- B. 1.2 miles

- C. 1.7 miles
- D. 2.1 miles

k - A

11. At 2030 you take the following bearings:

Sand Shoal Inlet South Light	- 275° T
Cape Charles Light	- 235° T

You also obtained a Loran-C reading of 9960-Z-58702.

The set and drift from 2000 to 2030 are _____.

- A. 088° at 0.7 knot
- B. 253° at 1.4 knots
- C. 258° at 0.8 knot
- D. 267° at 1.5 knots

k - D

12. From your 2030 fix you change course to 195° T, and leave the engine speed at 14 knots. At 2045 you obtain the following Loran-C readings:

9960-X-27114
9960-Y-41516

Sand Shoal Inlet Buoy "A" bears 318° true.

Which statement is TRUE?

- A. Cape Charles Light bears 050° relative.
- B. Chesapeake Light bears 190° relative.
- C. Your fathometer reading is approximately 40 fathoms.
- D. Your vessel is located in a restricted area.

k - A

13. You continue to steer 195° T. You pass Cape Charles Lighted Bell Buoy "14", 0.9 miles abeam to starboard at 2111. Your speed made good from 2045 to 2111 is _____.

- A. 13.7 knots
- B. 14.1 knots
- C. 14.5 knots
- D. 14.8 knots

k - D

14. Your course made good from 2045 to 2111 is _____.

- A. 187° T
- B. 190° T
- C. 193° T
- D. 196° T

k - C

15. If you are going to head directly for Chesapeake Light from your 2111 fix, what is the course to make good?

- A. 190° T
- B. 193° T
- C. 196° T
- D. 199° T

k - A

16. At 2200, you alter course to 204° T, at 14 knots. You expect a current on this leg of the trip, setting 325° at 1.5 knots. Which course should you steer per gyro compass to make good the true course?

- A. 184° pgc
- B. 190° pgc
- C. 194° pgc
- D. 201° pgc

k - D

BOOK # 05 QUESTION # 09013

The following questions (8-16) are to be answered using chart number 13205 TR, Block Island Sound and Approaches, and the supporting publications.

Your vessel has just taken departure from New London Harbor. Your height of eye is 65 feet and your vessel's draft is 22 feet. Use 15° W variation where required.

8. At 1910 you obtain the following bearings:

Bartlett Reef Light	268° T
Race Rock Light	147° T
Little Gull Island Light	198° T

What is your position at 1910?

- A. LAT 41°17.4' N, LONG 72°05.6' W
- B. LAT 41°17.0' N, LONG 72°07.1' W
- C. LAT 41°16.6' N, LONG 72°04.6' W

D. LAT 41°16.2' N, LONG 72°06.4' W

k - C

9. From your 1910 position, you set a course of 162° T at a speed of 14 knots. What will serve as a definite warning that you are being set towards Race Rock Light?

- A. Decreasing bearings to Race Rock Light
- B. Decreasing loran readings on loran rate 9960-W
- C. Increasing soundings
- D. Decreasing radar ranges to Race Point

k - B

10. At 1934 Little Gull Island Light bears 277° T and Race Rock Light bears 000° T. Which were the set and drift between 1910 and 1934?

- A. 321° T, 2.2 knots
- B. 321° T, 0.9 knots
- C. 331° T, 2.2 knots
- D. 331° T, 0.9 knots

k - C

11. From your 1934 position, you change course to pass 2.0 miles due north of Block Island Sound South Entrance Obstruction Lighted "BIS" Buoy. If you adjust your course only (while maintaining an engine speed of 14 knots) for a set and drift of 230° T at 3.5 knots, what is your ETA and distance off when abeam of Shagwong Reef Lighted Bell Buoy "7SR"?

- A. 2003, 4.2 miles
- B. 2009, 4.2 miles
- C. 2003, 3.7 miles
- D. 2009, 3.7 miles

k - D

12. At 1959 Watch Hill Point Light bears 030° T, Montauk Point Light bears 146° T, and Little Gull Light bears 283° T. What is the approximate fathometer reading?

- A. 51 feet
- B. 73 feet
- C. 95 feet
- D. 111 feet

k - A

13. At 2038 Block Island North Light bears 065° T, Montauk Point Light bears 216° T, and a reading of 25959 is obtained on loran rate 9960-X. Which statement is TRUE?

- A. Your speed made good between your 1959 fix and 2038 fix is 11.0 knots.
- B. Your course made good between your 1959 fix and 2038 fix is 103° T.
- C. At your 2038 fix, your vessel is governed by the Inland Rules of the Road.
- D. Block Island Sound South Entrance Obstruction Lighted "BIS" Buoy is located 3.6 miles off your starboard bow.

k - D

14. From your 2038 position you change course to 104° T and increase engine speed to 18 knots. If you make good this course and speed, at what time will Southwest Ledge Lighted Bell Buoy "2" bear 157° T?

- A. 2047
- B. 2052
- C. 2056
- D. 2101

k - B

15. At 2107 Block Island Southeast Point Light bears 062° T, and at 2112 this light bears 038° T. What is your distance off Block Island Southeast Point Light at 2112?
(assume no set and drift)

- A. 2.1 miles
- B. 2.5 miles
- C. 2.9 miles
- D. 3.3 miles

k - B

16. At 2132 you sight Block Island Southeast Point Light in line with the Aero beacon (rotating white and green) bearing 308.5° pgc. The helmsman reports he was heading 106° pgc and 119° psc. What is the deviation on that heading?

- A. 4° W
- B. 2° W
- C. 2° E
- D. 4° E

k - C

The following questions (8-16) are to be answered using chart number 12354 TR, Long Island Sound-Eastern Part, and the supporting publications.

You are on a coastwise voyage from Bridgeport, Conn., to Boston, Mass. You intend to divert to a position off New Haven, Connecticut, to evacuate an injured crew member. Your height of eye is 53 feet and your vessel's draft is 34 feet. Gyro error is 2° W. Use 14° W variation where required.

8. At 0820 Old Field Point Light bears 206° per gyrocompass, and Stratford Shoals Middle Ground Light bears 322° per gyrocompass. The radar range to Middle Ground Light is 1.5 miles. Your 0820 fix gives you a position of _____.

- A. LAT $41^{\circ}02.6'$ N, LONG $73^{\circ}05.2'$ W
- B. LAT $41^{\circ}02.5'$ N, LONG $73^{\circ}04.9'$ W
- C. LAT $41^{\circ}02.3'$ N, LONG $73^{\circ}05.2'$ W
- D. LAT $41^{\circ}02.0'$ N, LONG $73^{\circ}05.1'$ W

k - B

9. From your 0820 position you change course to your rendezvous position, one mile due south of buoy "NH", speed 14.5 knots. You estimate the current to be 260° T at 0.5 knot. The wind is northwesterly at 20 knots and you estimate 2° leeway. What is your course per gyrocompass (pgc) to the rendezvous position, if you correct your heading for current and leeway?

- A. 039°
- B. 041°
- C. 043°
- D. 045°

k - D

10. At 0847 you take a round of bearings as follows:

Middle Ground Shoal Light - 237° per gyrocompass
Stratford Point Light - 289° per gyrocompass
New Haven Light - 019° per gyrocompass

What were the set and drift since your 0820 position?

- A. Set 180° T, drift 0.6 kt
- B. Set 360° T, drift 0.3 kt
- C. Set 180° T, drift 0.3 kt
- D. Set 360° T, drift 0.6 kt

k - D

11. From your 0847 fix, you change course to arrive at the rendezvous position and, correcting for current, you estimate your speed over the ground at 15 knots. What is your ETA at the rendezvous?

- A. 0902
- B. 0905
- C. 0908
- D. 0911

k - C

12. At 1022 when you complete the evacuation, you get underway on course 098° and order turns for 14.5 knots. You take the following round of bearings at that time:

Stratford Point Light	- 260° per gyrocompass
New Haven Light	- 326° per gyrocompass
SW Ledge Light	- 358° per gyrocompass

Based on this data, what will be your distance off and ETA when abeam of Falkner Island Light, if there are no set and drift?

- A. 1102, 3.0 miles
- B. 1108, 3.3 miles
- C. 1114, 3.1 miles
- D. 1118, 3.3 miles

k - B

13. As you cross the New Haven Outer Channel range, you observe the range in line bearing 335.5° per gyrocompass. The helmsman reports that he was heading 100° per gyrocompass, and that the standard magnetic compass read 109° at the time of the observation.

What are the gyro error and deviation of the standard magnetic compass on this heading?

- A. Gyro error 2° E, deviation 3° E
- B. Gyro error 0° , deviation 2° W
- C. Gyro error 2° W, deviation 9° W
- D. Gyro error 2° W, deviation 3° E

k - D

14. At 1038 Branford Reef Light bears 019° pgc, Falkner Island Light bears 075° pgc, and the radar range to Branford Reef Light is 3.0 miles. Which statement is TRUE of your 1038 position?

- A. You are required by regulation to change course to avoid steaming through the dumping ground.

- B. You are making more speed over the ground, since your 1022 fix, than indicated by your engine RPM.
- C. When the loran reads 9960-Y-43964.0, you should follow that loran reading to the approaches to the Race.
- D. Your fathometer reads about 25 feet.

k - D

15. The north shore of Long Island, from Horton Point to Orient Point, is _____.

- A. bluff and rocky
- B. low and sparsely wooded
- C. marked by long sandy beaches at low water
- D. marshy and backed with sand dunes

k - A

16. The visibility is excellent. When Race Rock Light Tower breaks the horizon, how far will you be from the Tower?

- A. 8.5 miles
- B. 9.6 miles
- C. 14.0 miles
- D. 17.9 miles

k - D

BOOK # 05 QUESTION # 09015

The following questions (8-16) are to be answered using chart number 13205 TR, Block Island Sound and Approaches, and the supporting publications.

Your height of eye is 55 feet and your vessel's mean draft is 22 feet. Your present course is 111° T and your vessel's engines are turning RPM'S for 13 knots.

8. At 1930 Race Rock Light bears 111° T, Little Gull Island Light bears 172° T, and a reading of 26157 is obtained on Loran Rate 9960-X. Which of the following is your position at 1930?

- A. LAT $41^{\circ}15.6'$ N, LONG $72^{\circ}09.6'$ W
- B. LAT $41^{\circ}16.1'$ N, LONG $72^{\circ}08.3'$ W
- C. LAT $41^{\circ}15.3'$ N, LONG $72^{\circ}12.9'$ W
- D. LAT $41^{\circ}15.8'$ N, LONG $72^{\circ}07.1'$ W

k - D

9. From your 1930 position, you set a course of 150° T. Your engine speed is 13 knots. What will be your distance off Valiant Rock Bell Buoy "1A" when abeam, if you make good your true course of 150° ?

- A. 0.8 mile
- B. 1.0 miles
- C. 1.2 miles
- D. 1.4 miles

k - B

10. Available information indicates that there is a set and drift in this area of 290° T at 2 knots. Allowing for this set and drift, what course must you steer to make good a true course of 150° , while maintaining an engine speed of 13 knots, from your 1930 position?

- A. 141° T
- B. 145° T
- C. 149° T
- D. 153° T

k - B

11. The speed you can expect to make good over your course while steering to make 150° T is _____.

- A. 11.0 knots
- B. 11.4 knots
- C. 14.0 knots
- D. 14.4 knots

k - B

12. At 1949 Little Gull Island Light bears 270° T and is 1.7 miles off. From this position, you change course to 118° T and increase engine speed to 18 knots. If you make good your course and speed, at what time should Shagwong Reef Lighted Bell Buoy "7SR" bear 180° T?

- A. 2016
- B. 2019
- C. 2022
- D. 2025

k - A

13. At 2027 you obtain a radar range to Shagwong Point of 3.4 miles and a tangent bearing to the east end of Long Island of 172° T. Which statement is TRUE?

- A. You are to the right of your DR track.
- B. You are inside a precautionary area.
- C. Your speed made good from 1949 to 2027 is 16.0 knots.
- D. Your course made good from 1949 to 2027 is 111° T.

k - C

14. From your 2027 position you change course to 106° T, while maintaining an engine speed of 18 knots. Your ETA at a position where Block Island Sound South Entrance Obstruction Lighted Buoy "BIS" is abeam is _____.

- A. 2039
- B. 2043
- C. 2047
- D. 2050

k - D

15. At 2054 Block Island Southeast Point Light bears 054° T, Southwest Ledge Lighted Bell Buoy 2 is 1.6 miles off to port, and a reading of 14595 is obtained on loran rate 9960-W. The set and drift from 2027 to 2054 is _____.

- A. 126° T at 3.1 knots
- B. 131° T at 1.4 knots
- C. 145° T at 3.3 knots
- D. 302° T at 1.5 knots

k - A

16. From your 2054 position, you change course to 066° T. Maintaining course and speed of 18 knots, at what time can you expect to first cross the 90-foot curve if you experience no set and drift?

- A. 2105
- B. 2111
- C. 2117
- D. 2125

k - A

BOOK # 05 QUESTION # 09016

The following questions (8-16) are to be answered using chart number 12221 TR, Chesapeake Bay Entrance, and the supporting publications.

Your present course is 200° T, and your vessel's engines are turning RPM's for 16 knots. Your height of eye is 55 feet, and your vessel's deep draft is 32 feet.

8. At 2045, you obtain the following Loran-C information:

9960-X-27102
9960-Y-41627
9960-Z-58743

Your vessel's position is _____.

- A. LAT 37°22.8' N, LONG 75°30.8' W
- B. LAT 37°22.3' N, LONG 75°31.7' W
- C. LAT 37°22.0' N, LONG 75°29.3' W
- D. LAT 37°21.8' N, LONG 75°30.7' W

k - B

9. From your 2045 position, you set a course to pass 1.5 miles due east of the charted position of Hog Island Lighted Bell Buoy "12". The known set and drift in the area are 068° T at 3 knots. What is the course to steer, with no change in engine speed, to make good your desired course?

- A. 200° T
- B. 203° T
- C. 206° T
- D. 209° T

k - A

10. The speed that you can expect to make good, while steering to make good your desired course, is _____.

- A. 13.5 knots
- B. 14.3 knots
- C. 15.1 knots
- D. 15.9 knots

k - B

11. At 2129 Cape Charles Light bears 253° T, Hog Island Lighted Bell Buoy "12" bears 351° T, and Cape Charles Lighted Bell Buoy "14" bears 230° T. Which statement is TRUE?

- A. The fathometer reads about 62 feet.
- B. The bottom is hard sand and oysters.
- C. You are to seaward of the contiguous zone.
- D. You are governed by the International Rules of the Road.

k - D

12. From your 2129 position you reduce engine speed to 14 knots. What is the course to make good from your 2129 position to arrive 0.3 mile north of Lighted Whistle Buoy "NCA" (LL#375) assuming no set and drift?

- A. 216° T
- B. 219° T
- C. 222° T
- D. 225° T

k - C

13. At 2207 Cape Charles Light bears 276° T, Chesapeake Light bears 194° T, and Cape Charles Lighted Bell Buoy "14" bears 312° T and is 2.0 miles off. What were the set and drift of the current acting on your vessel from 2129 to 2207?

- A. 248° T at 2.3 knots
- B. 260° T at 1.5 knots
- C. 072° T at 1.8 knots
- D. 078° T at 2.4 knots

k - D

14. From your 2207 position you adjust your course to arrive 0.3 mile north of Lighted Whistle Buoy "NCA". If you make good 14 knots, at what time will Cape Charles Light be abeam?

- A. 2241
- B. 2244
- C. 2247
- D. 2250

k - A

15. At 2259 Cape Henry Light bears 250° T, Chesapeake Light bears 122° T, and North Chesapeake Entrance Lighted Whistle Buoy "NCA" has a radar range of 1.8 miles. Which statement is TRUE?

- A. The course made good is 226° T.
- B. You are in the red sector of Cape Henry Light.
- C. You are in a submerged submarine transit lane.
- D. Chesapeake Light is 7.6 miles off.

k - D

16. From your 2259 fix, you alter course to 250° T. At 2300 Cape Henry Light bears 250° T. At 2326 Cape Henry Light bears 252° T. Which statement is TRUE?

- A. You are being set to the right.

- B. The bearing change should be expected as you transit the inbound lane.
- C. You should alter course to starboard.
- D. You should slow to reduce the effect of the current.

k - C

BOOK # 05 QUESTION # 09019

The following questions (8-16) are to be answered using chart 13205 TR, Block Island Sound, and the supporting publications.

Your draft is 28 feet. Your course is 340° T. The gyro error is 2° E. You are turning for 12.4 knots.

Use 15° W variation where required.

DEVIATION TABLE	
HDG	MAGNETIC DEVIATION
315°	1° E
330°	1° W
345°	3° W
360°	5° W

At 2209 you take the following loran readings:

9960-W-14617.0
 9960-X-25834.3
 9960-Y-43716.5

8. There is a strong WSW'ly wind causing an estimated 3° leeway. What course will you steer by standard magnetic compass from your 2209 position to make good 340° T?

- A. 322°
- B. 348°
- C. 356°
- D. 002°

k - C

9. Based on your 2209 fix, which would be a warning that you are being set down on Block Island Sound South Entrance Obstruction Lighted "BIS" Buoy?

- A. Decreasing loran readings on 9960-W
- C. RDF bearings of Montauk Point RBN changing to the left
- C. Increasing bearings of Southeast Point Light
- D. Decreasing soundings

k - A

10. If you make good your intended course and speed, at what time will you cross the 150-foot curve?

- A. 2237
- B. 2249
- C. 2256
- D. 2301

k - C

11. At 2230 you take the following RDF gyro bearings:

Montauk Point RBN 314.5°
Southeast Point RBN 005.5°

The vessel was heading 337° pgc at the time of the bearings. What is your 2230 position based on these bearings?

RDF CALIBRATION TABLE

REL. BEARING	CORRECTION
270°	- 4°
315°	- 1°
360°	+ 2°
045°	+ 4°

- A. LAT 40°51.2' N, LONG 71°35.9' W
- B. LAT 40°51.5' N, LONG 71°36.6' W
- C. LAT 40°51.8' N, LONG 71°36.5' W
- D. LAT 40°52.1' N, LONG 71°37.3' W

k - D

12. At 2302 you fix your position at LAT 40°57.8' N, LONG 71°39.3' W. What current have you experienced since your 2209 fix?

- A. 105° T at 1.0 knot
- B. 115° T at 0.9 knot
- C. 285° T at 1.0 knot
- D. 295° T at 0.9 knot

k - A

13. At 2302 you change course to compensate for an estimated current of 090° T, at 1.0 knot. What course per gyrocompass will you steer to leave Endeavor Shoals Lighted Gong Buoy "3" abeam to port at 1 mile?

- A. 324° pgc
- B. 327° pgc

- C. 330² pgc
- D. 333² pgc

k - B

14. After changing course to allow for a current of 090² T at 1.0 knot, what time will Endeavor Shoals Lighted Gong Buoy "3" be abeam to port?

- A. 2340
- B. 2345
- C. 2350
- D. 2355

k - C

15. Where will you cross the demarcation line between the International and Inland Rules of the Road?

- A. Between Montauk Point and Block Island
- B. In the Race
- C. At the mouth of Bridgeport Harbor
- D. Between Plum Gut and Niantic Bay

k - B

16. After passing through the Race, enroute to Bridgeport, CT, and Race Rock Light is 2 miles astern you notice an equal interval flashing red light on the starboard side. This light is _____.

- A. New London Airport Aerobeacon
- B. New London Harbor Light
- C. New London Ledge Light
- D. Bartlett Reef Light

k - B

BOOK # 05 QUESTION # 09020

The following questions (8-16) are to be answered using chart 12221 TR, Chesapeake Bay Entrance, and the supporting publications.

You are on an oceanographic research vessel equipped with standard navigational equipment. The gyro error is 2² W. The maximum draft is 13 feet. Variation is 10² W.

DEVIATION TABLE

HDG.MAG	DEV.
060 ²	1 ² W
075 ²	0 ²
090 ²	1 ² E

8. Chesapeake Channel is temporarily closed to traffic. At 2215 you anchor on the following bearings:

Wolf Trap Light	358 ² pgc
Light "HH"	301 ² pgc
New Point Comfort Light "2"	263 ² pgc

What is your 2215 position?

- A. LAT 37²18.3' N, LONG 76²10.9' W
- B. LAT 37²18.2' N, LONG 76²11.2' W
- C. LAT 37²18.1' N, LONG 76²10.8' W
- D. LAT 37²18.0' N, LONG 76²11.2' W

k - A

9. While you are at anchor, what will serve as a positive warning that you are drifting towards the wrecks located to the NW and SW of your 2215 position?

- A. A decreasing reading on loran pair 9960-X
- B. The bearing of Wolf Trap Light changing to the right
- C. Increasing soundings
- D. The bearing of Wolf Trap Light changing to the left

k - B

10. What course per gyrocompass would you need to steer from the anchorage to York Spit Channel buoy "29"?

- A. 172² pgc
- B. 175² pgc
- C. 178² pgc
- D. 181² pgc

k - A

11. When you get underway, you will take the most direct route to buoy "CBJ", while remaining west of York Spit Channel. You will be turning for 9.7 knots and estimate an average ebb of 0.3 knot during the transit. How long will it take to steam from the anchor position to buoy "CBJ"?

- A. 2h 16m
- B. 2h 33m
- C. 2h 42m
- D. 2h 51m

k - B

12. The area bounded by the buoys "C51" to "C47A" to "M6" to "M14", west of your anchorage, is _____.

- A. a training area for naval small craft
- B. restricted to oil and mineral exploration
- C. an anchorage for ammunition barges
- D. a fish trap area

k - D

13. As you transit the Chesapeake Bay Bridge and Tunnel, you take a gyro bearing of trestle C when it is in line. The gyro bearing was 050° . At that time, the helmsman noted that he was heading 139° pgc and 146° per standard magnetic compass. What is the deviation?

- A. 2° E
- B. 0°
- C. 2° W
- D. 4° W

k - A

14. At 1042 you take the following round of bearings:

Cape Henry Light	259° T
Chesapeake Light	101° T
Cape Charles Light	006° T

From this position, you set course 070° T at a speed of 9.5 knots. What is the course per standard magnetic compass?

- A. 069.5° psc
- B. 060.5° psc
- C. 079.5° psc
- D. 080.5° psc

k - C

15. At 1126 you take the following loran readings:

9960-X-27125.7
9960-Y-41329.0
9960-Z-58588.6

What was the current encountered since your 1042 fix?

- A. Set 284° , Drift 0.5 knot
- B. Set 269° , Drift 0.7 knot

- C. Set 098², Drift 0.5 knot
- D. Set 096², Drift 0.7 knot

k - D

16. You continue on course from your 1126 fix. At 1131 Cape Charles Light bears 322² T. At 1135 you change course to 000² T. At 1149 Cape Henry Light bears 247² T. Which statement concerning your 1149 running fix is TRUE?

- A. Your fathometer reads 47 feet.
- B. You are in a danger area.
- C. Chesapeake Light is due south of you.
- D. You are north of Smith Island Shoal.

k - B

BOOK # 05 QUESTION # 09021

The following questions (8-16) are to be answered by using chart 12354 TR, Long Island Sound-Eastern Part, and the supporting publications.

Your maximum draft is 24 feet. The gyro error is 3² E. Use a variation of 14² W where required. You are turning for 12.5 knots and on course 255² T.

DEVIATION TABLE

HDG.	MAG	DEVIATION
	240 ²	2 ² W
255 ²		0 ²
270 ²		2 ² E
285 ²		4 ² E

8. At 2216 your position is LAT 41²16.0' N, LONG 72²08.0' W. Which statement is TRUE?

- A. You are in the red sector of New London Harbor West Entrance Light.
- B. Your fathometer reads 41 feet.
- C. You can follow loran reading 9960-Y-43990 to remain clear of all dangers until west of Stratford Shoal.
- D. Little Gull Island Light bears 339² T at 4.3 miles.

k - A

9. If you estimate 3² leeway due to northerly winds, which course will you steer per standard magnetic compass (psc) to make good 255² T?

- A. 267² psc
- B. 270² psc
- C. 272² psc

D. 274² psc

k - A

10. You sight Bartlett Reef Light in range with New London Harbor Light bearing 038² pgc. At the time of the bearing, the helmsman reports he was heading 253² pgc and 269² per standard magnetic compass. What is the deviation for that heading?

A. 1² E

B. 1² W

C. 4² E

D. 4² W

k - A

11. At 2255 you take RDF gyro bearings as follows:

Saybrook Breakwater Light	330.5 ²
Little Gull Island Light	096.0 ²

At the time of the bearing, the helmsman reports he was heading 246² pgc. What is your 2255 estimated position?

RDF CALIBRATION TABLE

REL. BEARING - CORR.		REL. BEARING - CORR.	
000 ²	-1 ²	180 ²	0 ²
045 ²	+2 ²	225 ²	-3 ²
090 ²	+4 ²	270 ²	-5 ²
135 ²	+1 ²	315 ²	-3 ²

A. LAT 41²13.5' N, LONG 72²19.3' W

B. LAT 41²13.8' N, LONG 72²19.6' W

C. LAT 41²14.0' N, LONG 72²19.0' W

D. LAT 41²14.2' N, LONG 72²19.7' W

k - A

12. At 2308 you take the following loran readings:

9960-W-14840.0
9960-X-26289.5
9960-Y-43978.0

You steer a course to make good 255² T from this position. At 2310 you receive a distress call from a vessel anchored 2.1 miles due north of Mattituck Inlet Light. If you change course at 2314, what is the course to steer per gyrocompass to arrive at the distress site if you allow 2² leeway for northerly winds, 3² E gyro error and correct your course for a current of 073² T at 1.3 knots?

- A. 208² pgc
- B. 212² pgc
- C. 216² pgc
- D. 220² pgc

k - D

13. Based on the information in question 12, what is your ETA at the distress scene?

- A. 0006
- B. 0010
- C. 0016
- D. 0021

k - C

14. At 2347 you receive word that assistance is on hand at the distress scene, and you are released to proceed to your destination. At 2350 you change course to make good 268² T. At 0015 you take the following round of bearings:

Kelsey Point Breakwater light	024 ² pgc
Horton Point Light	100 ² pgc
Falkner Island Light	333 ² pgc

At 0030 Falkner Island Light bears 000² pgc at 5.9 miles. What is the course and speed made good between 0015 and 0030?

- A. CMG 262² T, SMG 10.4 knots
- B. CMG 268² T, SMG 10.8 knots
- C. CMG 268² T, SMG 10.4 knots
- D. CMG 272² T, SMG 10.8 knots

k - D

15. At 0030 you alter course and speed to make good 265² T at 10 knots. What is your ETA at a point where Stratford Shoal Middle Ground Light is abeam?

- A. 0218
- B. 0223
- C. 0228
- D. 0233

k - D

16. At 0200 you sight Stratford Point Lighted Bell Buoy "18" bearing 268² pgc. At 0215 the buoy bears 269² pgc. Which statement is TRUE?

- A. You should alter course to the right to increase the rate of the bearing change.
- B. You are making more speed over the ground than you estimated.
- C. You should alter course to decrease the distance that you will pass off Middle Ground Shoal.
- D. You can hold the present course and safely pass buoy "18".

k - C

BOOK # 05 QUESTION # 09023

The following questions (8-16) are to be answered by using chart 13205 TR, Block Island Sound, and the supporting publications.

Your height of eye is 42 feet and the gyro error is 2° E. Use 15° W variation. You are keeping day light savings time (ZT +4). Your draft is 34 feet.

DEVIATION TABLE

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
030 $^{\circ}$	3° W	150 $^{\circ}$	0°	270 $^{\circ}$	2° E
060 $^{\circ}$	4° W	180 $^{\circ}$	1° E	300 $^{\circ}$	1° E
090 $^{\circ}$	3° W	210 $^{\circ}$	2° E	330 $^{\circ}$	1° W
120 $^{\circ}$	2° W	240 $^{\circ}$	3° E	360 $^{\circ}$	3° W

At 0400 you take the following loran readings:

9960-X-25841.8
9960-Y-43736.7

8. From your 0400 fix, you steer a course to make good 347° T at 12.5 knots. Visibility is good. What is the earliest time you can expect to raise Montauk Point Light? (Nominal range - 24 miles, height above water - 168 feet)

- A. The light is visible at 0400.
- B. 0426
- C. 0435
- D. 0442

k - A

9. You estimate the current to be 125° at 0.6 knot, and the wind is westerly causing 3° of leeway. What course should you steer per gyro compass to make good 347° T while turning for 12.5 knots?

- A. 340° pgc
- B. 343° pgc
- C. 346° pgc
- D. 349° pgc

k - A

10. At 0445 you take the following lines of position:

Montauk Point Light	292° pgc
Block Island Southeast Point Light	024° pgc

What was the current encountered since your 0400 fix?

- A. 352°, 0.7 knot
- B. 004°, 0.9 knot
- C. 172°, 0.7 knot
- D. 184°, 0.9 knot

k - B

11. At 0455 you encounter fog and slow to 5 knots. At 0500 you take the following RDF gyro bearings:

Montauk Point Radiobeacon	271.5°
Block Island Southeast Point Radiobeacon	041.0°

The radar range to Montauk Point is 9.04 miles.

CALIBRATION TABLE

REL. BNG.	CORR.	REL. BNG.	CORR.	REL. BNG.	CORR.
030°	-4.0°	150°	+1.5°	270°	+1.0°
060°	-2.5°	180°	+2.5°	300°	-1.0°
090°	-1.0°	210°	+3.0°	330°	-2.0°
120°	+1.0°	240°	+2.0°	360°	-3.0°

At the time of the bearings the helmsman reports that the vessel was heading 348° pgc. What is your 0500 position?

- A. LAT 41°02.8' N, LONG 71°39.5' W
- B. LAT 41°02.9' N, LONG 71°39.8' W
- C. LAT 41°03.1' N, LONG 71°39.6' W
- D. LAT 41°03.5' N, LONG 71°39.3' W

k - D

12. Based on your 0500 fix, which statement is TRUE?

- A. You are seaward of the 120 fathom curve.
- B. The course made good between 0445 and 0500 was 345° T.
- C. You should alter course to port to clear Southwest Ledge Shoal.
- D. A radar contact bearing 020° T at 4.8 miles is buoy "2A".

k - C

13. At 0520 your position is LAT 41°07.2' N, LONG 71°41.6' W. You set course to leave Race Rock Light abeam to starboard at 0.5 mile. What is the course to steer per standard magnetic compass? (Assume no current)

- A. 301.5°
- B. 305.0°
- C. 307.5°
- D. 309.0°

k - C

14. Visibility becomes variable in patchy fog and you maintain 5 knots speed. At 0610 you sight Montauk Point Light bearing 239° pgc, and at 0630 you sight Watch Hill Point Light bearing 333° pgc. What is the position of your 0630 running fix?

- A. LAT 41°08.3' N, LONG 71°45.4' W
- B. LAT 41°08.2' N, LONG 71°45.8' W
- C. LAT 41°08.1' N, LONG 71°45.1' W
- D. LAT 41°08.0' N, LONG 71°45.2' W

k - A

15. At 0630 you increase speed to 12.0 knots. At 0645 Race Rock Light bears 294° pgc. At 0700 Race Rock Light bears 293° pgc. Based on this, you should _____.

- A. alter course to port
- B. maintain course and speed
- C. alter course to starboard
- D. maintain course and reduce speed

k - A

16. The Tidal Current Tables indicate the following for the Race:

SLACK WATER	MAXIMUM	CURRENT
0328	0642	3.9 F
0947	1301	3.2 E

What current should you expect when transiting the Race?

- A. 3.9 knots, flooding
- B. 3.5 knots, flooding
- C. 3.3 knots, flooding
- D. 3.0 knots, flooding

k - A

BOOK # 05 QUESTION # 09024

The following questions (8-16) are to be answered by using chart 13205 TR, Block Island Sound, and the supporting publications.

Your draft is 16 feet, and the height of eye is 36 feet. There is a light haze. The gyro error is 2° E. Use 15° W variation where required.

DEVIATION TABLE

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	2.0° E	120°	1.0° E	240°	3.0° W
030°	3.0° E	150°	1.0° W	270°	1.5° W
060°	4.0° E	180°	2.0° W	300°	0.0°
090°	2.0° E	210°	3.5° W	330°	1.5° E

At 2212 you take the following loran readings:

9960-W-14722.3
9960-X-25996.6
9960-Y-43759.5

8. What is the course to steer per gyrocompass from your 2212 position to leave Montauk Point Buoy "MP" abeam to port at 1 mile if easterly winds are causing 3° of leeway?

- A. 027° pgc
- B. 030° pgc
- C. 032° pgc
- D. 035° pgc

k - D

9. What is the earliest time you should sight Montauk Point Light (nominal range - 24 miles) if you are turning for 9.2 knots? Visibility is 5 nautical miles.

- A. The light is visible at 2212
- B. 2221
- C. 2243
- D. You will not sight the light on this course.

k - A

10. At 2245 visibility improves and Montauk Point Light bears 355° pgc. At 2314 Montauk Point Light bears 331° pgc, and at 2329 the light bears 311° pgc. Based on your 2329 running fix which statement is TRUE?

- A. You are shoreward of the 90 foot curve.
- B. Your fathometer reads about 136 feet.
- C. You are being set to the left of the track.
- D. You allowed too much leeway for the easterly winds.

k - C

11. At 2346 Montauk Point Light bears 285° pgc, and the radar range to Montauk Point is 5.9 miles. You are steering to make good 034° T. In order to remain westward of Southwest Ledge you should _____.

- A. come left before the loran reads 9960-X-25900 or less
- B. remain on your present course and you will clear Southwest Ledge
- C. keep Block Island North Light bearing 033° or less
- D. alter course to the right when Block Island Aerobeacon bears 055° T

k - A

12. At 2352 you hear a MAYDAY call from a vessel reporting her position as 1.5 miles due east of Block Island Southeast Point Light. What is the course to steer per gyrocompass to the distress site if you change course at midnight and allow 1° leeway for easterly winds?

- A. 051.5°
- B. 054.5°
- C. 057.0°
- D. 060.0°

k - D

13. At 0040 you are south of Lewis Point when you receive word that the distress is terminated. You alter course to head for The Race. At 0052 you take the following relative bearings because the starboard gyro repeater is inoperative. Your heading at each bearing was 285° pgc. What is your 0052 position?

Race Rock Light	002°
Watch Hill Light	034°
Block Island North Light	122°

- A. LAT $41^{\circ}08.8'$ N, LONG $71^{\circ}41.4'$ W
- B. LAT $41^{\circ}09.0'$ N, LONG $71^{\circ}42.3'$ W
- C. LAT $41^{\circ}09.0'$ N, LONG $71^{\circ}41.1'$ W
- D. LAT $41^{\circ}09.1'$ N, LONG $71^{\circ}41.7'$ W

k - D

14. You continue to steer 285° pgc from your 0052 fix. Your speed is 9.2 knots. What is the course per standard magnetic compass?

- A. 273.5°
- B. 276.0°
- C. 298.0°
- D. 302.0°

k - D

15. At 0100 Race Rock Light bears 001° relative, and at 0110 it bears 000° relative. Based on this you know you _____.

- A. are being set to the right of the track
- B. are making good more than 9.2 knots
- C. are making good less than 9.2 knots
- D. have an unknown gyro error

k - A

16. In order to check your compasses, you sight Race Rock Light in line with New London Harbor Light bearing 336° per gyrocompass. The helmsman reports the vessel was heading 275.0° pgc and 290.5° per standard magnetic compass at the time of the observation. Which statement is TRUE?

- A. The gyro error is now 2° E.
- B. The deviation table is correct for that heading.
- C. The vessel should be swung to check the deviation table.
- D. The compass error is 0.5° W.

k - B

BOOK # 05 QUESTION # 09026

The following questions (8-16) are to be answered using chart 12221 TR, Chesapeake Bay Entrance, and supporting publications.

Your present course is 202° T, and your speed is 18 knots. Your vessel's mean draft is 28 feet (8.5 meters), and your height of eye is 54 feet (16.5 meters). Use 10° W variation where required.

8. At 0800 you obtain the following Loran-C readings:

9960-X-27101
9960-Y-41612
9960-Z-58737

What is your vessel's position?

- A. LAT 37°20.9' N, LONG 75°29.5' W
- B. LAT 37°21.0' N, LONG 75°32.0' W
- C. LAT 37°19.8' N, LONG 75°30.6' W

D. LAT 37°20.8' N, LONG 75°31.2' W

K - B

9. At 0800 you reduce speed from sea speed. Speed was reduced by the time you passed abeam of Cape Charles Lighted Bell Buoy "12" at 0814. At this time Buoy "12" was abeam on your starboard side at a distance of 0.65 mile. Assuming you continue to make good your course of 202° T, what is your new speed if you pass abeam of Cape Charles Lighted Bell Buoy "14" at a distance of 1.5 miles at 0907?

- A. 13.6 knots
- B. 12.9 knots
- C. 12.3 knots
- D. 12.0 knots

K - B

10. Visibility is excellent. At approximately what distance did Chesapeake Light become visible?

- A. 19.2 miles
- B. 21.0 miles
- C. 22.7 miles
- D. 24.0 miles

K - B

11. At 0907 you change course to 224° T, and your speed is now 13.0 knots. At 0939 Chesapeake Light is bearing 168° T at a distance of 7.1 miles, and Cape Henry Light is bearing 246° T. What were the set and drift since 0907?

- A. 324° T at 0.8 knot
- B. 314° T at 1.3 knots
- C. 146° T at 1.4 knots
- D. 115° T at 2.2 knots

K - C

12. From your 0939 position, you wish to change course in order to pass 0.3 mile north of Buoy "NCA" (LL#375) in the inbound traffic lane. You estimate the current to be 150° T at 2.0 knots. What course should you steer to make good the desired course? Your speed is still 13.0 knots.

- A. 232° T
- B. 235° T
- C. 245° T
- D. 249° T

K - C

13. At what time will you enter the inbound traffic lane with Buoy "NCA" (LL #375) bearing 180° T at 0.3 mile?

- A. 1003
- B. 0957
- C. 0951
- D. 0948

K - B

14. At 1010 your vessel passes close abeam to Buoy "NCB" in the inbound traffic lane. At this time the Chesapeake Bay Pilot informs you that he will not board your vessel until 1100. The pilot boat is located 1.5 miles northeast of Cape Henry Light. What should you reduce your speed to in order to arrive at the pilot boat at this time?

- A. 5.9 knots
- B. 7.5 knots
- C. 8.2 knots
- D. 9.8 knots

K - C

15. After the pilot boards, he tells you the gyro has a 2° E error. If this is true, what should the bearing be along Trestle C of the Chesapeake Bay Bridge-Tunnel as your vessel passes abeam of it?

- A. 052° pgc
- B. 049° pgc
- C. 047° pgc
- D. 045° pgc

K - C

16. Your vessel's heading is 330° pgc and 345° psc with a 2° E gyro error. What is the deviation on this heading?

- A. 0°
- B. 3° W
- C. 4° E
- D. 7° W

K - B

The following questions (6-20) are based on chart 12221TR, Chesapeake Bay Entrance, and the supporting publications.

Your vessel has a draft of 10 feet (3 meters), and your height of eye is 20 feet (6.1 meters). Use 10° W variation where required. The gyro error is 3° E. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	0°	120°	2° W	240°	3° E
030°	1° W	150°	1° W	270°	3° E
060°	2° W	180°	1° E	300°	2° E
090°	4° W	210°	2° E	330°	1° E

6. You are on course 192° pgc at 12 knots. You obtain a loran fix at 1900 using the following information:

9960-X-27120
9960-Y-41623
9960-Z-58729

What is your latitude and longitude at 1900?

- A. LAT 37°21.5' N, LONG 75°34.8' W
- B. LAT 37°22.4' N, LONG 75°34.9' W
- C. LAT 37°22.6' N, LONG 75°35.7' W
- D. LAT 37°22.9' N, LONG 75°36.2' W

k - C

7. What course should you steer using the standard magnetic compass (psc) to make good the course of 192° pgc?

- A. 188° psc
- B. 195° psc
- C. 203° psc
- D. 205° psc

k - C

8. At 1920, the buoy off your starboard bow is _____.

- A. an interrupted quick flashing buoy
- B. Hog Island Lighted Bell Buoy
- C. South Light Buoy
- D. Sand Shoal Inlet Lighted Buoy "A"

k - D

9. At 1930, your position is LAT 37°16.7' N, LONG 75°37.7' W. The depth of water is approximately _____.

- A. 30 feet (9.1 meters)
- B. 40 feet (12.1 meters)
- C. 50 feet (15.1 meters)
- D. 60 feet (18.1 meters)

k - C

10. At 1950, your position is LAT 37°12.3' N, LONG 75°38.6' W. The set and drift from 1930 to 1950 were _____.

- A. 142° T at 0.6 knot
- B. 150° T at 1.6 knots
- C. 218° T at 0.9 knot
- D. 333° T at 1.4 knots

k - B

11. Assume set and drift have no effect on your vessel. If you change course to 187° pgc from your 1950 position, how close will you pass Cape Charles Lighted Bell Buoy "14"?

- A. 0.1 mile
- B. 0.5 mile
- C. 1.1 mile
- D. 1.7 miles

k - C

12. At 2020, you obtain a fix using the following information:

9960-X-27112
9960-Y-41432

Cape Charles Lighted Bell Buoy "14" bears 333° pgc. Your longitude is _____.

- A. 75°38.9' W
- B. 75°39.1' W
- C. 75°39.3' W
- D. 75°40.5' W

k - D

13. At 2020, what is the course to steer to enter the inbound lane of North Chesapeake Entrance traffic separation scheme if a northwesterly wind causes 3° of leeway?

- A. 227° pgc

- B. 224² pgc
- C. 221² pgc
- D. 215² pgc

k - C

14. If you make good 12 knots, what is the ETA at North Chesapeake Channel Entrance Buoy "NCA" (LL #375)?

- A. 2116
- B. 2111
- C. 2106
- D. 2101

k - B

15. At 2100, Cape Charles Light bears 321² pgc, and Cape Henry Light bears 247² pgc. Your latitude is _____.

- A. 37²00.0' N
- B. 36²59.7' N
- C. 36²59.4' N
- D. 36²59.1' N

k - C

16. If the visibility is 3 miles, at what range will you lose sight of Chesapeake Light?

- A. The light has never been visible.
- B. 6.4 miles
- C. 8.3 miles
- D. 12.1 miles

k - C

17. At 2100, you alter course to 250² T and reduce speed to 7 knots. You enter the traffic separation scheme on the inbound side. At 2200, your fix shows you crossing a broken purple line on the chart, and you observe North Chesapeake Entrance Lighted Gong Buoy "NCD" to port. This area is _____.

- A. a precautionary area centered on buoy "CBJ"
- B. a pilotage area
- C. an area with local magnetic disturbances
- D. in inland waters

k - A

18. What course per standard magnetic compass is (psc) the same as 247° pgc?

- A. 240° psc
- B. 246° psc
- C. 257° psc
- D. 260° psc

k - C

19. At 2215, Cape Henry Light bears 242° pgc, Cape Charles Light bears 010.5° pgc, and Chesapeake Channel Tunnel North Light bears 319° pgc. You are heading 271° pgc. What is the relative bearing of Thimble Shoal Light?

- A. 280°
- B. 332°
- C. 014°
- D. 017°

k - C

20. While navigating inbound Thimble Shoal Channel system you must _____.

- A. navigate in the main channel when between Trestles A & B
- B. maintain a minimum speed of 6 knots
- C. remain 1500 yards (1360 meters) from large naval vessels
- D. use the north auxiliary channel

k - D

BOOK # 05 QUESTION # 09203

The following questions (6-20) should be answered using chart number 13205TR, Block Island Sound and Approaches, and supporting publications.

You are steering a westerly course and approaching Block Island Sound. The variation for the area is 15° W. The gyro error is 2° E. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	0°	180°	0°
030°	1.0° W	210°	1.0° E
060°	3.0° W	240°	2.0° E
090°	2.0° W	270°	1.5° E
120°	1.0° W	300°	1.0° E
150°	0°	330°	0°

6. You are underway in the vicinity of Block Island and obtain the following lines of position:

Montauk Point Light	263° pgc
Block Island Southeast Light	026° pgc
Radar Bearing to Block Island Southwest Point	348° pgc

What is your position at the time of these sightings?

- A. LAT 41°05.0' N, LONG 71°36.2' W
- B. LAT 41°05.3' N, LONG 71°36.0' W
- C. LAT 41°05.3' N, LONG 71°35.8' W
- D. LAT 41°05.4' N, LONG 71°35.5' W

k - C

7. What course should you steer by your standard magnetic compass to make good a course of 280° T?

- A. 266° psc
- B. 272° psc
- C. 290° psc
- D. 294° psc

k - D

8. Which of the following statements, concerning the radiobeacon at Montauk Point Light, is TRUE?

- A. It transmits its signal at 286 MHz.
- B. It transmits a Morse code signal for the letters NP.
- C. The antenna which transmits the signal bears 227° T from the light at a range of 690 yards.
- D. Transmission of the radiobeacon signal is accompanied by the sounding of a horn.

k - C

9. At 1800, your position is LAT 41°06.5' N, LONG 71°43.5' W. How would the buoy which bears 030° T from your position at a range of approximately 0.5 mile be painted?

- A. Horizontally banded, green over red
- B. Horizontally banded, red over green
- C. Vertically striped, red and green
- D. Solid green with red letters "BIS"

k - A

10. From your 1800 position you steer a course of 350° psc at a speed of 10.0 knots. At 1830, your position is LAT $41^{\circ}11.7'$ N, LONG $71^{\circ}45.8'$ W. What are the set and drift of the current?

- A. 020° T, 0.7 knot
- B. 029° T, 1.4 knots
- C. 200° T, 0.7 knot
- D. 208° T, 1.4 knots

k - B

11. From your 1830 fix, you come left to a course of 290° T. Which of the following statements concerning Watch Hill Light is FALSE?

- A. The nominal range of its white light is 15 miles.
- B. It displays both red and white lights.
- C. Its horn blasts every 30 seconds in fog.
- D. Its geographic range is 18.5 miles at a 35 foot (10.7 meter) height of eye.

k - D

12. At 1850, you obtain the following bearings and distances:

Montauk Point	189° pgc	8.7 miles
Watch Hill Light	340° pgc	5.7 miles

What true course did you make good between 1830 and 1850?

- A. 286° T
- B. 293° T
- C. 299° T
- D. 307° T

k - B

13. If your height of eye is 35 feet (10.7 meters), what is the approximate geographic range of Block Island North Light?

- A. 7.4 nm
- B. 13.0 nm
- C. 14.3 nm
- D. 15.8 nm

k - D

14. From your 1850 fix, you come left to a course of 280° T, while maintaining a speed of 10 knots. Which of the following combinations of available Loran-C lines would be best for position determination?

- A. 9960-Y and 9960-W
- B. 9960-X and 9960-Y
- C. 9960-W and 9960-X
- D. All are equally good.

k - A

15. You decide to use the 9960-Y and 9960-W rates. At 1915, you obtain the following readings:

9960-Y-43936.0
9960-W-14653.3

What is your 1915 position?

- A. LAT 41°13.0' N, LONG 71°54.0' W
- B. LAT 41°13.1' N, LONG 71°53.9' W
- C. LAT 41°13.2' N, LONG 71°54.3' W
- D. LAT 41°13.2' N, LONG 71°53.7' W

k - D

16. If you were to head into Fishers Island Sound, which of the following charts would you switch to for better detail of Mystic and Mystic Harbor?

- A. 13209
- B. 13212
- C. 13213
- D. 13214

k - D

17. From your 1915 position, you come left and set a course for Gardiners Point. At 1930, your position is LAT 41°12.7' N, LONG 71°56.8' W. What type of bottom is charted at this position?

- A. Blue mud, gritty shells
- B. Buried mussels, gritty shells
- C. Blue mud, gray sand
- D. Bumpy muck with grainy surface

k - C

18. From your 1930 position, you plot a course to pass 0.5 mile due south of Race Rock Light. If your vessel's speed is 10.0 knots, the current's set and drift are 040° T at 1.8 knots, and a north wind produces a 3° leeway, what true course should you steer to make good your desired course?

- A. 275² T
- B. 280² T
- C. 290² T
- D. 294² T

k - B

19. As an option to heading into Long Island Sound, you consider anchoring in the vicinity of the Gardiners Point Ruins at the north end of Gardiners Island. What is the minimum recommended distance from the ruins for fishing, trawling, or anchoring?

- A. 300 yards (91 meters)
- B. 1.0 mile
- C. 0.5 mile
- D. No distance is prescribed since any such activities in the area are prohibited.

k - A

20. NOAA VHF-FM weather broadcasts from New London, CT are on _____.

- A. 162.25 MHz
- B. 162.30 MHz
- C. 162.40 MHz
- D. 162.55 MHz

k - D

BOOK # 05 QUESTION # 09204

The following questions (6-20) are to be answered by using chart 12221TR, Chesapeake Bay Entrance and the supporting publications.

Your draft is 14 feet (4.2 meters). Use 10² W for variation where required. The gyro error is 3² E. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.
000 ²	2.0 ² E	180 ²	2.0 ² W
030 ²	1.0 ² E	210 ²	1.0 ² W
060 ²	0 ²	240 ²	0.5 ² W
090 ²	0.5 ² W	270 ²	0.5 ² E
120 ²	1.0 ² W	300 ²	1.5 ² E
150 ²	2.0 ² W	330 ²	2.5 ² E

6. Your 1600 position is LAT 37²22.5' N, LONG 75²32.3' W. The depth of water under the keel is about _____.

- A. 38 feet (11.5 meters)
- B. 45 feet (13.6 meters)
- C. 52 feet (15.8 meters)

D. 59 feet (17.3 meters)

k - A

7. If there is no current, what is the course per gyro compass from your 1600 position to point A located 0.5 mile due east of Hog Island Lighted Bell Buoy "12"?

- A. 190° pgc
- B. 193° pgc
- C. 196° pgc
- D. 199° pgc

k - B

8. At 1630, you reach point A and come right to 204° T. Your engine speed is 12 knots. Your 1715, position is LAT 37°09.8' N, LONG 75°37.4' W. The current was _____.

- A. 058° T at 1.1 knots
- B. 238° T at 1.1 knots
- C. 067° T at 1.5 knots
- D. 246° T at 1.6 knots

k - C

9. From your 1715 fix, you steer 214° T at 12 knots. At 1800, you take a fix using the following Loran-C readings:

9960 - X - 27116.8
9960 - Y - 41386.0
9960 - Z - 58620.6

Your 1800 position is _____.

- A. LAT 37°02.9' N, LONG 75°43.1' W
- B. LAT 37°02.9' N, LONG 75°43.9' W
- C. LAT 37°03.0' N, LONG 75°43.3' W
- D. LAT 37°03.1' N, LONG 75°42.8' W

k - A

10. At 1815, your position is LAT 37°01.0' N, LONG 75°42.7' W. If there is no current, what is the course per standard magnetic compass to arrive at a point 0.3 mile due north of North Chesapeake Entrance Lighted Whistle Buoy "NCA" (LL#375)?

- A. 249.0°
- B. 251.5°

- C. 255.0°
- D. 257.0°

k - D

11. From your 1815 position, you want to make good a course of 263° T. Your engines are turning RPM's for 12 knots. The current is 050° T at 1.9 knots. Adjusting your course for set and drift, at what time should you expect to enter the red sector of Cape Henry Light?

- A. 1849
- B. 1854
- C. 1859
- D. 1904

k - D

12. At 1920, Cape Henry Light bears 225° pgc, and Chesapeake Channel Tunnel North Light bears 288° pgc. If your heading is 268° T, what is the relative bearing of Chesapeake Light?

- A. 194°
- B. 205°
- C. 213°
- D. 220°

k - C

13. Which statement concerning your 1920 position is TRUE?

- A. You are entering a restricted area.
- B. You are governed by the Inland Rules of the Road.
- C. You are within the Chesapeake Bay Entrance traffic separation scheme.
- D. You can expect differences of as much as 6° from the normal magnetic variation of the area.

k - A

14. From your 1920 position, you change course to enter Chesapeake Channel between bouys 9 and 10. What is the course per standard magnetic compass (psc) ?

- A. 286° psc
- B. 283° psc
- C. 280° psc
- D. 274° psc

k - B

15. At 2000, your position is LAT 37°04.1' N, LONG 76°05.6' W. You change course for the Eastern Shore. At 2037, Old Plantation Flats Light bears 033° pgc, and York Spit Light bears 282° pgc. The course made good from your 2000 position is _____.

- A. 359° T
- B. 006° T
- C. 014° T
- D. 020° T

k - A

16. At 2037, you change course to make good a course of 016° T. There is no current, but a westerly wind is causing 3° leeway. What course per standard magnetic compass (psc) should you steer to make good the course 016° T?

- A. 031° psc
- B. 028° psc
- C. 025° psc
- D. 022° psc

k - D

17. Your height of eye is 25 feet (7.6 meters). If the visibility is 5.5 nautical miles, what is the luminous range of Wolf Trap Light?

- A. 7.5 miles
- B. 12.0 miles
- C. 16.0 miles
- D. 17.0 miles

k - A

18. If you want a more detailed chart of the area at your 2115 DR position, which chart should you use?

- A. 12222
- B. 12224
- C. 12225
- D. 12238

k - B

19. At 2123, your position is LAT 37°20.0' N, LONG 76°03.0' W. What is your distance offshore of Savage Neck?

- A. 4.3 miles

- B. 3.4 miles
- C. 2.6 miles
- D. 1.7 miles

k - D

20. From your 2123 position, you are approximately 42 miles from Crisfield, MD. If you are making good a speed of 13 knots, at what time should you arrive at Crisfield, MD?

- A. 2359
- B. 0037
- C. 0112
- D. 0148

k - B

BOOK # 05 QUESTION # 09205

The following questions (6-20) are to be answered by using Chart Number 12354TR, Long Island Sound - Eastern Part, and the supporting publications.

The draft of your vessel is 11.0 feet (3.3 meters). Use 14° W variation where required. The gyro error is 3° E. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	2.0°E	180°	2.0°W
030°	1.0°E	210°	1.0°W
060°	0°	240°	0.5°W
090°	0.5°W	270°	0.5°E
120°	1.0°W	300°	1.5°E
150°	2.0°W	330°	2.5°E

6. At 0700, Stratford Shoal Middle Ground Light bears 137° pgc. From your radar, you get a bearing of 007° pgc to the south tip of Stratford Point with a range of 4.5 miles. What is your 0700 position?

- A. LAT 41°04.6' N, LONG 73°07.0' W
- B. LAT 41°04.6' N, LONG 73°07.4' W
- C. LAT 41°04.7' N, LONG 73°07.2' W
- D. LAT 41°04.8' N, LONG 73°07.0' W

k - C

7. At 0725, you are heading 054° T, and Stratford Point Light is abeam to port at 3.1 miles. The current is 135° T at 1.8 knots. If you make turns for an engine speed of 8 knots, which course must you steer to make good 048° T.

- A. 035° T
- B. 042° T

- C. 047° T
- D. 055° T

k - A

8. Which structure should you look for while trying to locate Southwest Ledge Light?

- A. White conical tower with a brown band midway of height
- B. White octagonal house on a cylindrical pier
- C. Conical tower, upper half white, lower half brown
- D. Black skeleton tower on a granite dwelling

k - B

9. At 0830, you obtained the following Loran-C readings:

9960-X-26562.5
9960-Y-44028.1

What is your vessel's position?

- A. LAT 41°12.4' N, LONG 73°56.0' W
- B. LAT 40°17.4' N, LONG 73°54.0' W
- C. LAT 41°12.0' N, LONG 72°53.8' W
- D. LAT 41°12.4' N, LONG 72°53.8' W

k - D

10. From your 0830 position, you wish to make good 097° T. There is no current, but a southerly wind is producing 3° leeway. What course should you steer per standard magnetic compass in order to make good your true course?

- A. 118° psc
- B. 115° psc
- C. 112° psc
- D. 109° psc

k - B

11. At 0845, you are on a course of 097° T, and Townshend Ledge Buoy "10A" is close abeam to port. With a westerly current of 1.2 knots, what speed will you have to turn for from your 0845 position in order to arrive abeam of Six Mile Reef Buoy "8C" at 1030?

- A. 8.5 knots
- B. 9.7 knots
- C. 10.9 knots
- D. 12.1 knots

k - C

12. At 0910, your DR position is LAT 41°11.9' N, LONG 72°47.8' W. Your vessel is on course 097° T at 9.5 knots, and the weather is foggy. At 0915, Branford Reef Light is sighted through a break in the fog bearing 318° T. At 0945, Falkner Island Light is sighted bearing 042° T. What is your 0945 running fix position?

- A. LAT 41°11.1' N, LONG 72°41.2' W
- B. LAT 41°11.3' N, LONG 72°41.3' W
- C. LAT 41°11.4' N, LONG 72°41.0' W
- D. LAT 41°11.5' N, LONG 72°40.7' W

k - D

13. What do the dotted lines around Goose Island and Kimberly Reef represent?

- A. Limiting danger
- B. Breakers
- C. Depth contours
- D. Tide rips

k - C

14. At 1100, your position is LAT 41°11.3' N, LONG 72°28.0' W. You are steering a course of 069° T to leave Black Point one mile off your port beam. It has been reported that the Long Sand Shoal Buoys and Hatchett Reef Buoys are off station. Which of the following will serve as a line marking the hazards and keep your vessel in safe water?

- A. Danger bearing to Black Point of not more than 065° T
- B. A Loran reading of more than 9960-Y-43985.0
- C. A bearing to Little Gull Island Light of not less than 090°
- D. A distance to Saybrook Breakwater Light of not less than 1.3 miles

k - A

15. Little Gull Island Light is _____.

- A. lighted only during daytime when the sound signal is in operation
- B. maintained only from May 1 to Oct 1
- C. lighted throughout 24 hours
- D. obscured by trees from 253° to 352°

k - C

16. At 1210, you are in position LAT 41°14.3' N, LONG 72°16.5' W. What is the depth of water below your keel?

- A. 97 feet (29.4 meters)
- B. 108 feet (32.7 meters)
- C. 119 feet (36.1 meters)
- D. 125 feet (37.9 meters)

k - A

17. From your 1210 position, you are steering a course of 083° T. Your engines are turning RPMs for 10 knots. The set and drift of the current are 310° at 1.7 knots. At what time should you expect to enter the red sector of New London Harbor Light?

- A. 1241
- B. 1249
- C. 1256
- D. 1309

k - B

18. Your vessel is entering New London Harbor Channel. If there is no current, what should you steer per gyro compass to stay on the range?

- A. 351°
- B. 354°
- C. 357°
- D. 006°

k - A

19. On chart 12354, the datum from which heights of objects are taken is _____.

- A. mean high water
- B. mean low water
- C. lowest low water
- D. mean lower low water

k - A

20. The red sector of New London Harbor Light covers from _____.

- A. 040° - 310°
- B. 000° - 041°
- C. 208° - 220°
- D. 204° - 239°

k - B

BOOK # 05 QUESTION # 09207

The following questions (6-20) should be answered using chart 12354TR, Long Island Sound-Eastern Part, and the supporting publications.

The draft of your vessel is 8.5 feet (2.6 meters). Variation is 14° W for this entire plot. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000 ²	0 ²	120 ²	2 ² W	240 ²	3 ² E
030 ²	1 ² W	150 ²	1 ² W	270 ²	3 ² E
060 ²	2 ² W	180 ²	1 ² E	300 ²	2 ² E
090 ²	4 ² W	210 ²	2 ² E	330 ²	1 ² E

6. What type of bottom is found at Long Sand Shoal?

- A. Rocky
- B. Muddy
- C. Sandy
- D. Hard

k - D

7. You are southeast of Saybrook Breakwater Light passing Saybrook Bar Lighted Bell Buoy "8". This buoy marks_____

- A. shoal water
- B. a tide rips area
- C. the junction with the Connecticut River
- D. a sunken wreck

k - A

8. At 0005, on 26 January, your position is LAT $41^{\circ}11.8'$ N, LONG $72^{\circ}20.5'$ W. From this position, you plot a course to steer to Mattituck Breakwater Light "MI" with an engine speed of 9.0 knots. If there are no set and drift, what course should you steer?

- A. 207.0² psc
- B. 225.0² psc
- C. 230.5² psc
- D. 233.0² psc

k - D

9. At 0045, you obtain the following information:

Radar range to Inlet Point is 1.4 miles;
Radar range to Rocky Point is 2.8 miles.
Radar range to Horton Point is 2.8 miles.

What were the set and drift between 0005 and 0045?

- A. 285° True, 0.9 knot
- B. 202° True, 1.5 knots
- C. 185° True, 0.6 knot
- D. 095° True, 1.4 knots

k - D

10. You alter course from your 0045 position to head for Mattituck Breakwater Light "MI". If the visibility is 10 miles and you make good 9 knots, at what time will you lose sight of Saybrook Breakwater Light?

- A. You have already lost sight at 0045
- B. 0100
- C. 0123
- D. The light is visible all the way to Mattituck Inlet

k - B

11. At 0100, you obtain the following radar ranges:

Inlet Point - 2.7 miles,
Rocky Point - 4.5 miles,
Horton Point - 1.0 mile.

What was the speed made good between 0045 and 0100?

- A. 7.2 knots
- B. 8.0 knots
- C. 8.7 knots
- D. 9.2 knots

k - A

12. From your 0100 position, you change course to 258° per standard magnetic compass. Your engine speed is 10.0 knots. A short time later, your fathometer reads 51 feet (15.5 meters) under the keel. What is the water depth?

- A. 38.5 feet (11.7 meters)
- B. 43.5 feet (13.2 meters)
- C. 51.0 feet (15.5 meters)
- D. 59.5 feet (18.0 meters)

k - D

13. According to the DR track line from your 0100 position, how far off Roanoke Point Shoal Buoy "5" should you be when the buoy is abeam?

- A. 0.2 mile
- B. 0.8 mile
- C. 1.3 mile
- D. 1.8 miles

k - B

14. At 0130, you obtain the following radar ranges:

Horton Point Light - 4.3 miles;
Mattituck Breakwater Light - 3.45 miles;
Duck Pond Point - 2.0 miles.

What were the course and speed made good between 0100 and 0130?

- A. 246° T at 9.8 knots
- B. 253° T at 9.4 knots
- C. 259° T at 9.8 knots
- D. 267° T at 9.4 knots

k - A

15. From your 0130 position, you change course to adjust for set and drift, and you later obtain the following loran lines of position:

9960-W-14975
9960-X-26412
9960-Y-43919

What is the latitude and longitude of the loran fix?

- A. LAT $41^{\circ}00.8'$ N, LONG $72^{\circ}40.8'$ W
- B. LAT $41^{\circ}01.2'$ N, LONG $72^{\circ}40.4'$ W
- C. LAT $41^{\circ}01.6'$ N, LONG $72^{\circ}40.0'$ W
- D. LAT $41^{\circ}02.0'$ N, LONG $72^{\circ}39.5'$ W

k - D

16. At 0209, your position is LAT $41^{\circ}01.8'$ N, LONG $72^{\circ}40.8'$ W. What course should you steer per standard magnetic compass to make good 278° magnetic? (assume no set and drift)

- A. 262.0° psc
- B. 265.0° psc
- C. 275.5° psc

D. 280.5² psc

k - C

17. The south coast of Long Island Sound between Mattituck Inlet and Port Jefferson is _____.

- A. composed of high rocky bluffs
- B. a high, flat plateau with sheer cliffs
- C. fringed by rocky shoals
- D. low and marshy with isolated beaches

k - C

18. At 0300, your position is LAT 41°01.7' N, LONG 72°55.1' W. From this position you steer a course of 289° per standard magnetic compass at an engine speed of 10.0 knots. At what time can you first expect to see Stratford Shoal Middle Ground Light if the luminous range is 8.0 miles?

- A. 0303
- B. 0309
- C. 0312
- D. 0318

k - A

19. You must arrive at your final destination by 0800. The distance from your 0300 position to the final destination is 40.5 miles. What minimum speed must be made good to arrive on time?

- A. 8.1 knots
- B. 8.5 knots
- C. 9.3 knots
- D. 9.6 knots

k - A

20. You are northwest of Port Jefferson Harbor steering 242° per standard magnetic compass. As you continue westward, you see that the Port Jefferson Range Front Light and Rear Light come into line. If the deviation table is correct, the bearing of the range should be _____.

- A. 140° psc
- B. 146° psc
- C. 157° psc
- D. 160° psc

k - C

The following questions (6-20) should be answered using chart 12354TR, Long Island Sound-Eastern Part, and the supporting publications.

Your vessel has a draft of 9 feet (2.7 meters). The variation is 14° W. You are turning for 7.5 knots. Your height of eye is 25 feet (7.6 meters). The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	0°	180°	0°
030°	1.0° W	210°	1.0° E
060°	3.0° W	240°	2.0° E
090°	2.0° W	270°	1.5° E
120°	1.0° W	300°	1.0° E
150°	0°	330°	0°

6. As you enter the New Haven Outer Channel, you sight the range markers in line directly over the stern. Your heading at the time is 155.5° per gyrocompass. What is the gyro error?

- A. 1.0° E
- B. 1.0° W
- C. 2.0° W
- D. 0°

k - C

7. At 0720, you are in the outer channel between buoy "1" and buoy "2" and change course to pass Townshend Ledge Lighted Gong Buoy "10A" abeam to port at 200 yards. What is your ETA off the buoy?

- A. 0734
- B. 0738
- C. 0741
- D. 0745

k - B

8. At 0740, you plot a loran fix from the following readings:

9960-X-26542.0
 9960-Y-44023.0
 9960-W-15027.0

What is your position?

- A. LAT $41^{\circ}12.6'$ N, LONG $72^{\circ}51.3'$ W
- B. LAT $41^{\circ}12.6'$ N, LONG $72^{\circ}51.8'$ W
- C. LAT $41^{\circ}12.4'$ N, LONG $72^{\circ}51.5'$ W

D. LAT 41°12.3' N, LONG 72°52.0' W

k - C

9. From your 0740 position, you change course to pass 1.1 miles north of Falkner Island Light. What loran reading will ensure that you will remain clear of the 18' shoal located 1 mile NW of Falkner Island Light?

- A. 9960 W: not less than 14942
- B. 9960 X: not more than 26452
- C. 9960 Y: not less than 44013
- D. None of the above

k - C

10. At 0802, Branford Reef Light bears 348° T at 0.75 mile, and the north point of Falkner Island bears 088° T at 6.7 miles. What were the set and drift since 0740?

- A. Set 040° T, drift .25 knot
- B. Set 220° T, drift .60 knot
- C. Set 235° T, drift .25 knot
- D. You are making good your intended course and speed.

k - B

11. What publication contains information on the navigational hazards in the vicinity of Falkner Island?

- A. The navigational regulations in Title 46, Code of Federal Regulations
- B. Inland Navigation Rules
- C. U.S. Coast Guard Light List
- D. U.S. Coast Pilot

k - D

12. If there is no current, what is the course per standard magnetic compass from your 0802 fix to the position 1.1 miles north of Falkner Island Light?

- A. 064°
- B. 068°
- C. 095°
- D. 099°

k - C

13. At 0830, you wish to get the latest weather forecasts for the Falkner Island area. On what frequency would you set your FM radio for this information?

- A. 2181 khz
- B. 156.65 Mhz
- C. 156.80 Mhz
- D. 162.40 Mhz

k - D

14. At 0844, the range to the north end of Falkner Island is 2.0 miles and the left tangent bearing is 102° T. What is the approximate charted depth of the water?

- A. 14 ft (4.2 meters)
- B. 19 ft (5.8 meters)
- C. 22 ft (6.7 meters)
- D. 29 ft (8.8 meters)

k - D

15. At 0925, you plot the following loran fix:

9960-W-14931.5
9960-X-26418.2
9960-Y-44006.5

If you correct for a current setting 215° T at 0.5 knot, what course will you steer from the 0925 position to arrive at a position 0.5 mile south of Long Sand Shoal West End Horn Buoy "W"?

- A. 089° T
- B. 093° T
- C. 096° T
- D. 102° T

k - A

16. If you correct for the current in question 15 (215° T at 0.5 knot) and maintain an engine speed of 7.5 knots, what is your ETA 0.5 mile south of buoy "W"?

- A. 1016
- B. 1021
- C. 1026
- D. 1030

k - C

17. At what approximate distance would you expect Bartlett Reef Light to break the horizon, if the visibility is 27 nautical miles?

- A. 5.9 nm
- B. 6.9 nm
- C. 12.0 nm
- D. 12.8 nm

k - D

18. At 1038, you are 0.4 mile south of Long Sand Shoal Buoy "8A" on course 090° T when visibility is reduced to 1 mile in rain and haze. You intend to stay on 090° T until your Loran shows a reading that you can safely follow to the approaches of New London. Which of the following Loran readings will you look for?

- A. 9960-W-14710
- B. 9960-X-26290
- C. 9960-Y-43980
- D. 9960-W-14810

k - C

19. At 1200, your position is 2.0 miles southwest of Bartlett Reef Light. Your heading is 075° T. Visibility is less than 0.2 mile in fog and rain. Which of the following signals is most likely to be from another vessel?

- A. Whistle from 125° relative
- B. Whistle from 075° relative
- C. Bell from 350° relative
- D. Horn from 330° relative

k - B

20. What chart should you use after you enter New London Harbor?

- A. 13211
- B. 13213
- C. 13214
- D. 13272

k - B

BOOK # 05 QUESTION # 09209

The following questions (6-20) should be answered using chart 12221TR, Chesapeake Bay Entrance.

Use 10° W variation for all problems. The gyro error is 3° E. The height of eye is 25 feet (7.6 meters). The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	0°	120°	2° W	240°	3° E
030°	1° W	150°	1° W	270°	3° E
060°	2° W	180°	1° E	300°	2° E
090°	4° W	210°	2° E	330°	1° E

6. The National Weather Service provides 24 hour weather broadcasts to vessels transiting the Chesapeake Bay Bridge Tunnel area on which frequency?

- A. 147.45 MHz
- B. 162.55 MHz
- C. 181.15 MHz
- D. 202.35 MHz

k - B

7. At 1752, your position is LAT 37°04.3' N, LONG 76°06.4' W. On a flood current you should expect to be set to the _____.

- A. north northwest
- B. south southwest
- C. east southeast
- D. east

k - A

8. Your 1752 position places you _____.

- A. less than 0.5 mile westward of York Spit Channel
- B. less than 0.5 mile eastward of York Spit Channel
- C. greater than 0.5 mile westward of York Spit Channel
- D. greater than 0.5 mile eastward of York Spit Channel

k - A

9. What is the average velocity of the maximum flood current at the Tail of the Horseshoe?

- A. 0.6 knot
- B. 0.9 knot
- C. 1.3 knots
- D. 1.6 knots

k - B

10. From your 1752 position, you steer 307° pgc at 9 knots. At 1805, you obtain the following visual bearings:

Old Pt. Comfort Light 232° pgc.

Chesapeake Bay Tunnel North Light 130° pgc.

What are the latitude and longitude of your 1805 position?

- A. LAT $37^{\circ}06.1'$ N, LONG $76^{\circ}08.1'$ W
- B. LAT $37^{\circ}06.0'$ N, LONG $76^{\circ}08.4'$ W
- C. LAT $37^{\circ}05.9'$ N, LONG $76^{\circ}07.7'$ W
- D. LAT $37^{\circ}05.9'$ N, LONG $76^{\circ}08.0'$ W

k - D

11. At 1810, you sight a buoy on your starboard side labelled

"19."

This buoy marks _____.

- A. a submerged obstruction in York Spit Channel
- B. the visibility limit of the red sector of Cape Henry Light
- C. the side of York Spit Channel
- D. the junction of the York Spit and York River Entrance Channels

k - C

12. Based on a DR, at approximately 1817 you would expect to _____.

- A. enter a traffic separation zone
- B. depart a regulated area
- C. cross a submerged pipeline
- D. depart a restricted area

k - B

13. At 1845, you obtain a loran fix using the following information:

9960-X-27252.0

9960-Y-41432.0

9960-Z-58537.5

Your latitude is _____.

- A. $37^{\circ}10.7'$ N
- B. $37^{\circ}10.9'$ N
- C. $37^{\circ}11.0'$ N
- D. $37^{\circ}11.2'$ N

k - D

14. Your 1900 position is LAT $37^{\circ}12.9'$ N, LONG $76^{\circ}13.5'$ W. You change course to 317° psc and slow to 8.0 knots. What is the course per standard magnetic compass?

- A. 331° psc
- B. 329° psc
- C. 311° psc
- D. 309° psc

k - B

15. If the visibility is 11 miles, what is the luminous range of New Point Comfort Spit Light "4"?

- A. 0.5 mile
- B. 3.8 miles
- C. 4.3 miles
- D. 5.0 miles

k - D

16. According to your track line, how far off New Point Comfort Spit Light "4" will you be when abeam of this light?

- A. 0.9 mile
- B. 1.2 miles
- C. 1.5 miles
- D. 1.8 miles

k - A

17. At 1930, you take a fix using the following radar ranges:

York Spit Light - 3.6 miles;
New Point Comfort Spit Light "2" - 2.0 miles;
York Spit Swash Channel Light "3" - 2.5 miles.

Your longitude is _____.

- A. $76^{\circ}16.5'$ W
- B. $76^{\circ}16.8'$ W
- C. $76^{\circ}17.0'$ W
- D. $76^{\circ}17.2'$ W

k - B

18. What was the speed made good from 1845 to 1930?

- A. 6.2 knots
- B. 7.5 knots
- C. 8.3 knots
- D. 9.4 knots

k - C

19. What is the height above water of Davis Creek Channel Light "1"?

- A. 6 feet (1.8 meters)
- B. 15 feet (4.6 meters)
- C. 17 feet (5.2 meters)
- D. 24 feet (7.3 meters)

k - B

20. If you have 17.3 miles to reach your destination from your 2000 position and want to be there at 2230, what speed should you make good?

- A. 5.7 knots
- B. 6.1 knots
- C. 6.5 knots
- D. 6.9 knots

k - D

BOOK # 05 QUESTION # 09210

The following questions (6-20) should be answered using chart 12221TR, Chesapeake Bay Entrance.

Your vessel has a draft of 8.0 feet (2.4 meters). Use 10° W variation. The gyro error is 2° W. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	0°	120°	2° W	240°	3° E
030°	1° W	150°	1° W	270°	3° E
060°	2° W	180°	1° E	300°	2° E
090°	4° W	210°	2° E	330°	1° E

6. At 1730, your position is LAT 37°13.9' N, LONG 76°26.4' W. You are steering course 088° per standard magnetic compass (psc) at an engine speed of 8.0 knots. What is your distance off Tue Marshes Light at 1730?

- A. 2.6 miles
- B. 2.8 miles
- C. 3.0 miles
- D. 3.2 miles

k - A

7. What is the maximum allowable speed of vessels underway up river from Tue Marshes Light?

- A. 6 knots
- B. 8 knots
- C. 10 knots
- D. 12 knots

k - D

8. At 1750, your position is LAT 37°14.5' N, LONG 76°22.9' W. What was the course made good between 1730 and 1750?

- A. 072°T
- B. 075°T
- C. 077°T
- D. 080°T

k - C

9. At 1800, Tue Marshes Light bears 264.5° pgc, York Spit Swash Channel Light "3" bears 007° pgc. Your position is _____.

- A. LAT 37°15.5' N, LONG 76°19.8' W
- B. LAT 37°15.2' N, LONG 76°20.3' W
- C. LAT 37°15.0' N, LONG 76°20.0' W
- D. LAT 37°14.5' N, LONG 76°20.1' W

k - D

10. What course should you steer per standard magnetic compass in order to navigate down the center of York River Entrance Channel (ignore set and drift)?

- A. 139° psc
- B. 141° psc
- C. 147° psc
- D. 149° psc

k - B

11. You have just passed York River Entrance Channel Lighted Buoys "13" and "14". The chart shows a light approximately 1.0 mile off your port beam with a light characteristic "Fl 6 sec". What is the name of this light?

- A. Mobjack Bay Entrance Light
- B. New Point Comfort Shoal Light
- C. York Spit Light
- D. York River Entrance Channel Light "1"

k - C

12. At 1930, your vessel is between York River Entrance Channel Lighted Buoys "1YR" and "2". From this position, you change course to 142° pgc at an engine speed of 8.0 knots. At 2001, you obtain the following information:

Chesapeake Channel Tunnel North Light - 131° pgc;
Thimble Shoal Light - 248° pgc

What were the set and drift between 1930 and 2001?

- A. 079° at 1.1 knot
- B. 127° at 0.5 knot
- C. 290° at 1.2 knot
- D. 298° at 0.4 knot

k - B

13. At 2015, your vessel is at the Chesapeake Bay Bridge and Tunnel midway between buoys "13" and "14". If the height of tide is -1 foot (-0.3 meters), what is the approximate depth of water?

- A. 53 feet (15.5 meters)
- B. 46 feet (13.9 meters)
- C. 40 feet (12.1 meters)
- D. 35 feet (10.6 meters)

k - A

14. If you steer 143° pgc from your 2015 position at an engine speed of 8.0 knots, at what time would you reach a point midway between buoys "11" and "12" (ignore set and drift)?

- A. 2023
- B. 2029
- C. 2032
- D. 2037

k - B

15. At 2015, you alter course to 154° pgc. What is the course per standard magnetic compass?

- A. 162° psc

- B. 157² psc
- C. 152² psc
- D. 142² psc

k - A

16. Which of the following concerning Thimble Shoal Channel is TRUE?

- A. Only deep-draft passenger ships and large naval vessels may use the main channel.
- B. The channel is 14.5 miles in length.
- C. A tow drawing 20 feet is excluded from the main channel.
- D. Thimble Shoal Channel is in international waters.

k - C

17. At 2118, you obtain the following bearings:

Cape Henry Light	- 148 ² pgc
Cape Charles Light	- 033 ² pgc
Thimble Shoal Light	- 291 ² pgc

From this position, you proceed to Norfolk, VA, a distance of approximately 26.0 miles. To arrive at Norfolk by 0200 the next day, what is the minimum speed to make good from your 2118 position to arrive at this time?

- A. 5.0 knots
- B. 5.5 knots
- C. 6.0 knots
- D. 6.5 knots

k - B

18. What is your 2118 position?

- A. LAT 36²57.0' N, LONG 76²01.5' W
- B. LAT 36²57.4' N, LONG 76²01.9' W
- C. LAT 36²57.8' N, LONG 76²01.5' W
- D. LAT 36²58.2' N, LONG 76²02.4' W

k - B

19. From your 2118 position, you steer a course of 288²T at an engine speed of 7.0 knots. Visibility is suddenly reduced to 2 miles. At what time can you expect to see Old Point Comfort Light?

- A. The light is visible at 2118.
- B. 2143
- C. 2202

D. 2228

k - D

20 If the Old Point Comfort main light was inoperative what emergency light would be shown?

- A. Flashing yellow
- B. Alternating red and white
- C. Light of reduced intensity
- D. Strobe light

k - C

BOOK # 05 QUESTION # 09211

The following questions (6-20) should be answered using chart 12221TR, Chesapeake Bay Entrance.

The draft of your vessel is 9.0 feet (2.7 meters). Your height of eye is 15 feet (4.6 meters). Use a variation of 10°W where necessary. Gyro error is 2°W. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	0°	120°	2° W	240°	3° E
030°	1° W	150°	1° W	270°	3° E
060°	2° W	180°	1° E	300°	2° E
090°	4° W	210°	2° E	330°	1° E

6. At 1400, your position is LAT 37°14.7' N, LONG 76°22.3' W. From this position, you head for the York River Entrance Channel Buoy "17". What should you steer per standard magnetic compass for this heading?

- A. 108° psc
- B. 119° psc
- C. 122° psc
- D. 125° psc

k - D

7. At 1430, your position is LAT 37°12.8' N, LONG 76°17.7' W. At this time, you come left and steer 045° T. This course will lead you through a channel bordered by yellow buoys. The dashed magenta lines between the buoys mark _____.

- A. York River Entrance Channel
- B. New Point Comfort shoal area
- C. the piloting channel for Mobjack Bay
- D. fish trap areas

k - D

8. From your 1430 fix, you order turns for 8 knots. You steer 045° T and experience no set and drift. At what time would you expect to have New Point Comfort Spit Light "4" abeam?

- A. 1452
- B. 1458
- C. 1504
- D. 1510

k - B

9. At 1540, your position is LAT $37^{\circ}18.4'$ N, LONG $76^{\circ}10.5'$ W. Which course should you steer per gyrocompass to head for the entrance to Cape Charles City?

- A. 109° pgc
- B. 117° pgc
- C. 123° pgc
- D. 129° pgc

k - D

10. You arrive at Cape Charles City at 1700 and depart at 1800. You are underway in Chesapeake Bay and encounter heavy fog. At 1830, you obtain the following Loran-C readings:

9960-X-27224
9960-Y-41456
9960-Z-58572

What is your 1830 position?

- A. LAT $37^{\circ}10.3'$ N, LONG $76^{\circ}04.5'$ W
- B. LAT $37^{\circ}10.3'$ N, LONG $76^{\circ}06.5'$ W
- C. LAT $37^{\circ}12.3'$ N, LONG $76^{\circ}04.4'$ W
- D. LAT $37^{\circ}12.3'$ N, LONG $76^{\circ}06.5'$ W

k - C

11. From your 1830 fix, you continue south on a course of 150° T turning RPMs for 6 knots. You encounter a flood current in the direction of 330° T at 2 knots. Adjusting your course for set and drift, which course would you steer to make good a course of 150° T while turning RPMs for 6 knots?

- A. 144° T
- B. 150° T
- C. 158° T
- D. 162° T

k - B

12. At 1915, you take the following information:

Visual bearings

Cape Charles Light 107° pgc
Cape Henry Light 172° pgc

Radar Bearing and Range

Chesapeake Channel Tunnel South Light 189° pgc at 7.2 miles

What is your 1915 position?

- A. LAT 37°03.5' N, LONG 76°05.9' W
- B. LAT 37°03.5' N, LONG 76°09.3' W
- C. LAT 37°05.9' N, LONG 76°03.5' W
- D. LAT 37°09.3' N, LONG 76°03.1' W

k - D

13. From your 1915 fix you come right and steer a course of 200° T. At 2000, your position is LAT 37°05.5' N, LONG 76°07.0' W. Your intention is to pass through Chesapeake Channel. If there are no set and drift, what course would you steer per standard magnetic compass to make good a course of 145° T?

- A. 134°
- B. 139°
- C. 151°
- D. 156°

k - D

14. At 2100, you have passed through the Chesapeake Bay Bridge and Tunnel and determine your position to be LAT 37°01.3' N, LONG 76°03.0' W. The current is flooding in a direction of 303° T at 2.5 knots. Adjusting your course for set and drift, which course would you steer while turning RPMs for 6 knots to make good a course of 175° T?

- A. 156° T
- B. 164° T
- C. 183° T
- D. 190° T

k - A

15. At 2150, your position is LAT 36°57.2' N, LONG 76°01.3' W. In this position on the chart, you note a light magenta line running in a direction of 030° T. This line indicates the limits of _____.

- A. a precautionary area
- B. a pilotage area
- C. the Cape Henry Light red sector
- D. chart 12222

k - B

16. At 2200, you are in position LAT 36°57.5' N, LONG 76°02.5' W. You intend to travel up the Thimble Shoals auxiliary Channel to Hampton Roads. According to the Coast Pilot, what is the depth of the auxiliary channel on either side of the main channel?

- A. 28 feet
- B. 32 feet
- C. 36 feet
- D. 45 feet

k - B

17. From your 2200 fix, you steer course 288° T to travel up the Thimble Shoal North Auxiliary Channel. If you are making good 6.0 knots, at what time would you expect to pass buoy "18" at the west end of the channel? (There are no set and drift.)

- A. 2239
- B. 2255
- C. 2315
- D. 2344

k - D

18. At 2205, you are in Thimble Shoal North Auxiliary Channel abeam of lighted gong buoy "4". At this time the visibility decreases to 5 miles. You continue to turn RPMs for 6 knots and experience no set and drift. What time would you expect Old Point Comfort Light to become visible?

- A. 2210
- B. 2231
- C. 2246
- D. 2258

k - C

19. The mean high water level at Old Point Comfort is _____.

- A. 2.6 feet
- B. 1.2 feet

- C. 0.0 feet
- D. -3.5 feet

k - A

20. You are entering Norfolk Harbor and have just passed Craney Island. Which chart should you use for your final approach into Norfolk Harbor?

- A. 12223
- B. 12245
- C. 12248
- D. 12253

k - D

BOOK # 05 QUESTION # 09212

The following questions (6-20) should be answered using chart 12221TR, Chesapeake Bay Entrance.

The draft of your tow is 27 feet (8.2 meters). There is no gyro error, and the variation is 10° W. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000 $^{\circ}$	0 $^{\circ}$	120 $^{\circ}$	2 $^{\circ}$ W	240 $^{\circ}$	3 $^{\circ}$ E
030 $^{\circ}$	1 $^{\circ}$ W	150 $^{\circ}$	1 $^{\circ}$ W	270 $^{\circ}$	3 $^{\circ}$ E
060 $^{\circ}$	2 $^{\circ}$ W	180 $^{\circ}$	1 $^{\circ}$ E	300 $^{\circ}$	2 $^{\circ}$ E
090 $^{\circ}$	4 $^{\circ}$ W	210 $^{\circ}$	2 $^{\circ}$ E	330 $^{\circ}$	1 $^{\circ}$ E

6. Your 0200 position is LAT $37^{\circ}23.5'$ N, LONG $76^{\circ}09.2'$ W. Your speed is 8 knots, and your course is 095° T. Which statement is TRUE?

- A. The depth of the water in your vicinity is about 38 to 40 fathoms (69.1 meters to 72.7 meters).
- B. You are less than a mile from a sunken wreck which could interfere with your tow.
- C. The closest major aid to navigation is New Point Comfort Light.
- D. You will pass through a disposal area on your present course.

k - B

7. At 0315, you obtain the following loran readings:

9960-Y-41588.0
9960-X-27240.0

What is the true course from this position to the entrance of York Spit Channel?

- A. 203°
- B. 208°

- C. 211²
- D. 217²

k - B

8. From your 0315 position, what time can you expect to reach York Spit Channel Buoys "37" and "38"?

- A. 0405
- B. 0412
- C. 0417
- D. 0423

k - A

9. The engineer has advised that it will be necessary to secure the gyrocompass and the electronic equipment. From your 0315 position, what is your course per standard magnetic compass to York Spit Channel Buoy "38", if there is no current?

- A. 212² psc
- B. 214² psc
- C. 216² psc
- D. 218² psc

k - C

10. Which chart could you use for greater detail of the area at the south end of York Spit Channel?

- A. 12222
- B. 12224
- C. 12226
- D. 12254

k - A

11. You leave York Spit Channel at buoy "14" at 0600 with an engine speed of 12 knots. You receive orders to rendezvous with the tug "Quicksilver" and her tow at Hog Island Bell Buoy "12". What is your ETA at the rendezvous point, if you pass through Chesapeake Channel to buoy "CBJ", through the outbound traffic separation lane to buoy "NCA" (LL#375), and then to the rendezvous point?

- A. 0830
- B. 0850
- C. 0910
- D. 0935

k - C

12. You arrive at the rendezvous point, secure the tow, and head back southward. At 1200, you take the following loran readings:

9960-Y-41534
9960-X-27114
9960-Z-58691

What is your 1200 position?

- A. LAT 37°10.5' N, LONG 75°33.0' W
- B. LAT 37°12.0' N, LONG 75°35.0' W
- C. LAT 37°15.0' N, LONG 75°37.5' W
- D. LAT 37°19.0' N, LONG 75°40.5' W

k - C

13. From your noon position, if there is no set and drift, what is your course per standard magnetic compass to the "NCA" (LL #375) buoy?

- A. 215° psc
- B. 217° psc
- C. 219° psc
- D. 221° psc

k - B

14. Your gyro and electronic gear are again operating. At 1710, Chesapeake Light bears 137° pgc at 6.6 miles. The current is setting 160° T at 2 knots. At your speed of 6 knots, what is your true course to steer to remain in the inbound traffic lane?

- A. 269°
- B. 265°
- C. 261°
- D. 250°

k - A

15. At 1810, you obtain the following loran readings:

9960-X-27158.0
9960-Y-41292.5
9960-Z-58546.9

What is your position?

- A. LAT 36°56.0' N, LONG 75°58.5' W
- B. LAT 36°55.4' N, LONG 75°56.0' W

- C. LAT 36°54.9' N, LONG 75°53.8' W
- D. LAT 36°56.8' N, LONG 75°55.6' W

k - D

16. What speed have you made good from 1710 to 1810?

- A. 4.2 knots
- B. 4.9 knots
- C. 5.5 knots
- D. 6.3 knots

k - D

17. If you make good a speed of 6.0 knots from your 1810 position, what is your ETA at Chesapeake Channel Lighted Bell Buoy "2C"?

- A. 1833
- B. 1845
- C. 1855
- D. 1900

k - A

18. You passed Cape Henry Light at 0730 outbound at maximum flood. What approximate current can you expect on entering Chesapeake Channel?

- A. Slack before ebb
- B. Slack before flood
- C. Ebb current
- D. Flood current

k - D

19. The coastline by Cape Henry is best described as _____.

- A. rocky with pine scrubs
- B. sandy hills about eighty feet high
- C. low wetlands
- D. low and thinly wooded with many beach houses

k - B

20. Inbound, the color of Cape Henry Light will_____.

- A. change before you reach Chesapeake Channel Lighted Bell Buoy "2C"
- B. change after you reach Chesapeake Channel Lighted Bell Buoy "2C"

- C. remain the same
- D. alternate regardless of your position

k - A

BOOK # 05 QUESTION # 09213

The following questions (6-20) are based on chart 12354TR, Long Island Sound - Eastern Part, and the supporting publications.

Use 14° W variation where required. The gyro error is 2° E. Your draft is 12 feet (3.6 meters), and your height of eye is 16 feet (4.8 meters). The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
000°	0°	120°	2° W	240°	3° E
030°	1° W	150°	1° W	270°	3° E
060°	2° W	180°	1° E	300°	2° E
090°	4° W	210°	2° E	330°	1° E

6. You are on course 082° T, and the engines are turning for 8 knots. At 0352, you take the following bearings:

Stratford Point Light	016° pgc
Stratford Shoal (Middle Ground) Light	137° pgc

What is your 0352 position?

- A. LAT 41°05.0' N, LONG 73°08.0' W
- B. LAT 41°05.2' N, LONG 73°07.8' W
- C. LAT 41°05.3' N, LONG 73°07.5' W
- D. LAT 41°05.4' N, LONG 73°07.7' W

k - B

7. If the visibility is 11 miles, what is the earliest time you can expect to see New Haven Light?

- A. The light is visible at 0352.
- B. 0414
- C. 0443
- D. You will not sight the light.

k - C

8. While on a heading of 082° T, you sight Middle Ground Light in line with Old Field Point Light bearing 206° per standard magnetic compass. From this you can determine the _____.

- A. variation

- B. deviation table is correct for that heading
- C. compass error is 17.5° E
- D. deviation is 3.5° E for a bearing of 206° per standard magnetic compass

k - B

9. The maximum ebb current at a location 4.3 miles south of Stratford Point will occur at 0413. The predicted current will be 1.0 knot at 075° . What will be your course made good if you steer 082° T at 8 knots?

- A. 081° T
- B. 083° T
- C. 085° T
- D. 087° T

k - A

10. The characteristic of Branford Reef Light is_____.

- A. flashing red every 4 seconds
- B. flashing red every 3 seconds
- C. flashing white every 6 seconds
- D. flashing yellow every 4 seconds

k - C

11. At 0415, you take the following bearings:

Stratford Point Light	329.5° pgc
Middle Ground Light	223.5° pgc
Old Field Point Light	199.5° pgc

Which statement is TRUE?

- A. You are to the right of your intended track line.
- B. The current's drift is greater than predicted.
- C. The course made good since 0452 is 081° T.
- D. Your fathometer reads about 76 fathoms.

k - A

12. If you change course at 0420, what is the course to make good to leave Twenty Eight Foot Shoal Lighted Buoy abeam to port at 1 mile?

- A. 079° T
- B. 082° T
- C. 084° T
- D. 086° T

k - C

13. At 0430, you take the following loran readings:

9960-X-26605.5

9960-Y-43985.0

What is your 0430 position?

A. LAT 41°08.9' N, LONG 73°00.0' W

B. LAT 41°05.0' N, LONG 73°01.1' W

C. LAT 41°05.5' N, LONG 72°59.7' W

D. LAT 41°05.8' N, LONG 73°00.8' W

k - D

14. From your 0430 position, what is the course per standard magnetic compass to a position where Twenty-eight foot Shoal lighted buoy "TE" is abeam to port at 1 mile?

A. 082.5°

B. 086.0°

C. 098.0°

D. 101.5°

k - D

15. By 0430, the wind has increased, and the visibility cleared due to passage of a front. You estimate 3° leeway due to NW'ly winds. What is the course per gyrocompass to pass 1.2 miles due south of Twenty-eight Foot Shoal Lighted Buoy "TE"?

A. 080°

B. 083°

C. 086°

D. 090°

k - A

16. At 0430, you change course and speed to make good 090° T at 10 knots. At 0433, you slow due to an engineering casualty and estimate you are making good 5.5 knots. At what time will Branford Reef Light bear 000° T?

A. 0601

B. 0609

C. 0620

D. 0624

k - B

17. What is the approximate distance to New Bedford, MA, from your 0530 DR position, if your 0352 position was 7 miles from Bridgeport, CT?

- A. 77 miles
- B. 91 miles
- C. 104 miles
- D. 115 miles

k - D

18. At 0550, engineering repairs are complete, and speed is increased to 9.6 knots. At 0630, you take the following bearings:

Falkner Island Light 023° pgc
Horton Point Light 097° pgc

From your 0630 fix, you are steering a course to make good 086° T while turning for 9.6 knots. At 0700, you take the following bearings:

Falkner Island Light 336.0° pgc
Horton Point Light 105.5° pgc

The radar range to the south tip of Falkner Island is 5.7 miles.

Which statement is TRUE?

- A. Your course made good from 0630 to 0700 was 082° T.
- B. The speed made good from 0630 to 0700 was 10.1 knots.
- C. The current from 0630 to 0700 was 279° T at 0.6 knot.
- D. You are making good your intended speed.

k - D

19. The south shore of Long Island Sound from Horton Point to Orient Point is _____.

- A. low and marshy
- B. bluff and rocky
- C. marked by sandy beaches and wooded uplands
- D. bound by gradual shoaling

k - B

20. If visibility permits, Orient Point Light will break the horizon at a range of about _____.

- A. 9.3 miles

- B. 10.8 miles
- C. 13.9 miles
- D. 17.0 miles

k - C

BOOK # 05 QUESTION # 09214

The following questions (6-20) are based on chart 12221TR, Chesapeake Bay Entrance.

Your vessel draws 11 feet (3.3 meters), and your height of eye is 24 feet (7.3 meters). Use a variation of 10^2 W where necessary. The gyro error is 2^2 W. The deviation table is:

HDG. MAG.	DEV.	HDG. MAG.	DEV.	HDG. MAG.	DEV.
030 ²	1.5 ² E	150 ²	1.0 ² W	270 ²	0.0 ²
060 ²	3.0 ² E	180 ²	3.0 ² W	300 ²	1.0 ² E
090 ²	2.5 ² E	210 ²	1.0 ² W	330 ²	1.0 ² E
120 ²	2.0 ² E	240 ²	0.0 ²	360 ²	1.5 ² E

6. At 0410, you take the following bearings:

New Point Comfort Light "2"	242 ² T
Wolf Trap Light	313 ² T
Horn Harbor Entrance Light "HH"	262 ² T

What is your 0410 position?

- A. LAT 37²21.0' N, LONG 76²08.1' W
- B. LAT 37²21.0' N, LONG 76²08.8' W
- C. LAT 37²21.1' N, LONG 76²07.9' W
- D. LAT 37²21.2' N, LONG 76²08.2' W

k - A

7. If the visibility is 5 miles and you are in the red sector, at what distance off should you sight Cape Henry Light?

- A. 15 miles
- B. 13 miles
- C. 11 miles
- D. 09 miles

k - D

8. From your 0410 fix, what is the course per standard magnetic compass to the entrance to York Spit Channel between buoys "37" and "38"?

- A. 174²
- B. 177²

- C. 180°
- D. 184°

k - B

9. You are turning for 9 knots, a westerly wind is causing 3° of leeway, and the current is 320° T at 1.2 knots. What true course should you steer to remain in the northern leg of York Spit Channel?

- A. 191° T
- B. 194° T
- C. 197° T
- D. 203° T

k - B

10. If you are making 8.3 knots over the ground, what is your ETA at the first turning point in York Spit Channel between buoys "29" and "30"?

- A. 0444
- B. 0456
- C. 0508
- D. 0522

k - D

11. Which publication contains the specific information about navigating in York Spit Channel?

- A. Light List
- B. Coast Pilot
- C. Chesapeake Bay Harbor- master's Regulations Manual
- D. Navigator's Manual - Chesapeake Bay

k - B

12. At 0530, the Coast Guard announces that Chesapeake Channel is closed indefinitely due to a collision occurring in the channel between Trestle "B" and "C" of the Chesapeake Bay Bridge and Tunnel. You exit York Spit Channel, leaving buoy "20" abeam to port at 0.1 mile, and alter course to leave Horseshoe Crossing Lighted Bell Buoy abeam to port at 0.2 mile. What is the course per gyrocompass?

- A. 185° pgc
- B. 187° pgc
- C. 190° pgc
- D. 193° pgc

k - D

13. After you enter Thimble Shoal Channel, you will alter course to pass between Trestle "A" and "B". Which channel should you use?

- A. Thimble Shoal Main Channel or the South Auxiliary Channel
- B. Any of the channels but keep to the right hand side
- C. The South Auxiliary Channel
- D. Thimble Shoal Main Channel

k - C

14. As you pass through the Chesapeake Bay Bridge and Tunnel, you sight Trestle "A" in line bearing 198° pgc. What is the gyro error?

- A. 2° E
- B. 0° E
- C. 2° W
- D. 4° W

k - C

15. You sighted Trestle "A" in line at 0707 and are steering 108° T. At 0731, Cape Henry Light bears 136° T; Cape Charles Light bears 032.5° T; and Thimble Shoal Tunnel South Light bears 282° T. What was the speed made good between 0707 and 0731?

- A. 8.3 knots
- B. 8.8 knots
- C. 9.2 knots
- D. 9.4 knots

k - B

16. At 0731, approximately how much water is under your keel?

- A. 31 feet (9.4 meters)
- B. 45 feet (13.6 meters)
- C. 48 feet (14.5 meters)
- D. 54 feet (16.4 meters)

k - A

17. What is the distance from your 0731 fix to Wilmington, N.C. (LAT $34^{\circ}14.0'$ N, LONG $77^{\circ}57.0'$ W)?

- A. 339 miles
- B. 363 miles

- C. 402 miles
- D. 486 miles

k - A

18. You will enter waters governed by the International Rules when _____.

- A. you cross the territorial sea boundary line
- B. abeam of buoy "CBJ"
- C. you cross the boundary of the contiguous zone
- D. Cape Charles Light bears 022° T

k - D

19. At 0812, you take the following loran readings:

9960-X-27155.2
9960-Y-41267.9
9960-Z-58537.8

What is your 0812 position?

- A. LAT 36°53.7' N, LONG 75°56.0' W
- B. LAT 36°53.8' N, LONG 75°56.1' W
- C. LAT 36°54.5' N, LONG 75°56.2' W
- D. LAT 36°54.6' N, LONG 75°55.8' W

k - D

20. At 0812, you are on course 132° T. The standard magnetic compass reads 135°. What should you conclude?

- A. The deviation table is correct for that heading.
- B. You should adjust the magnetic compass.
- C. Your compass may be influenced by a local magnetic disturbance.
- D. The deviation is increasing as you go south.

k - C

BOOK # 05 QUESTION # 09215

The following questions (6-20) are based on chart 13205TR, Block Island Sound, and the supporting publications.

Your vessel draws 8 feet (2.4 meters), and the height of eye is 24 feet (7.3 meters). Use 15° W variation where required. The gyro error is 2° W. The deviation table is listed below.

HDG.	MAG.	DEV.	HDG.	MAG.	DEV.	HDG.	MAG.	DEV.
------	------	------	------	------	------	------	------	------

030 ²	3.0 ² E	150 ²	4.0 ² W	270 ²	1.0 ² E
060 ²	1.0 ² E	180 ²	4.0 ² W	300 ²	3.0 ² E
090 ²	1.0 ² W	210 ²	3.0 ² W	330 ²	4.0 ² E
120 ²	3.0 ² W	240 ²	1.0 ² W	360 ²	4.0 ² E

6. You are steering 087² pgc and turning for 6.8 knots. At 0600, you take the following loran readings:

9960-W-14784.4
 9960-X-26208.3
 9960-Y-43959.1

What is your 0600 position?

- A. LAT 41²11.2' N, LONG 72²14.6' W
- B. LAT 41²12.1' N, LONG 72²13.8' W
- C. LAT 41²12.3' N, LONG 72²14.7' W
- D. LAT 41²12.5' N, LONG 71²14.9' W

k - B

7. If you change course at 0610, what is the course to steer to a point where Little Gull Island Light bears 180² T at 0.7 mile (Point "A")?

- A. 072² pgc
- B. 076² pgc
- C. 080² pgc
- D. 084² pgc

k - C

8. What is your ETA at point "A"?

- A. 0640
- B. 0651
- C. 0655
- D. 0702

k - B

9. You calculate that the current will be ebbing at the Race at 0700. You should expect to be set in which general direction at the Race?

- A. West
- B. North
- C. Northeast
- D. East

k - D

10. As you near Little Gull Island, you use your loran to insure that you do not come within 0.5 mile of the island. Which of the following loran readings will act as a danger line and keep you off Little Gull Island by a minimum of 0.5 mile?

- A. Not less than 9960-Y-43953.5
- B. Not more than 9960-W-14735.9
- C. Not less than 9960-Z-60117.6
- D. Not more than 9960-X-26149.0

k - A

11. From point "A", you lay out an intended track line to a point where Block Island North Light bears 180° T at 2.9 miles (Point "B"). What is the length of this leg of the voyage?

- A. 20.4 miles
- B. 23.7 miles
- C. 23.9 miles
- D. 24.4 miles

k - D

12. What is the course per standard magnetic compass between points "A" and "B"?

- A. 094.5
- B. 095.5
- C. 097.5
- D. 098.5

k - D

13. At 0715 you take the following bearings:

Race Rock Light	328° pgc
Little Gull Island Light	249° pgc
Mt. Prospect Antenna	036° pgc

Based on your 0715 fix, which statement is TRUE?

- A. You are to the left of your track line.
- B. Your fathometer reads about 265 fathoms.
- C. You are in a cable area.
- D. You are governed by the Inland Rules.

k - A

14. From your 0715 position, you set a course of 085° T. At 0745 you take the following bearings:

Race Rock Light	278° pgc
Watch Hill Point Light	049° pgc
Fisher's Island East Harbor Cupola	010° pgc

What was the current encountered between 0715 and 0745?

- A. Set 030° T, drift 0.4 knot
- B. Set 216° T, drift 0.3 knot
- C. Set 070° T, drift 0.8 knot
- D. Set 238° T, drift 1.0 knot

k - C

15. The wind is southerly, and you estimate 3° leeway. Allowing for leeway, what is the course to steer from your 0745 position to pass 1 mile south of Watch Hill Buoy "WH"?

- A. 079° pgc
- B. 081° pgc
- C. 085° pgc
- D. 087° pgc

k - D

16. From your 0745 fix, you change course to pass 1.0 mile south of buoy "WH" and estimate your speed at 7 knots. If the visibility clears, what is the earliest time you can expect to see Block Island North Light tower?

- A. 0750
- B. 0807
- C. 0838
- D. 0845

k - B

17. Which statement describes the shore between Watch Hill Point and Point Judith?

- A. Low, rocky cliffs with heavily wooded hills inland
- B. Sandy beaches broken by projecting rocky points
- C. Sand dunes and beaches with a mud and sand bottom
- D. Wooded, barren hills with isolated prominent buildings

k - B

18. At 0830, Watch Hill Point bears 343° T at 3.5 miles by radar. What was the speed made good since 0745?

- A. 5.4 knots
- B. 5.8 knots
- C. 6.7 knots
- D. 7.1 knots

k - D

19. At 0900, you take the following radar ranges:

Watch Hill Point 5.4 miles
Block Island Grace Point 8.3 miles

Which statement about this fix is TRUE?

- A. You are to the left of the track line.
- B. The bottom in the area is sand and gravel.
- C. The fix is indeterminate
- D. You are governed by the Inland Rules.

k - C

20. At 0930, your position is LAT $41^{\circ}16.5'$ N, LONG $71^{\circ}41.4'$ W, and you are turning for 7 knots. Allowing 3° leeway for southerly winds and estimating the current as 035° at 0.3 knot. What is the course to steer to point "B"?

- A. 089° pgc
- B. 091° pgc
- C. 094° pgc
- D. 096° pgc

k - D

BOOK # 05 QUESTION # 09216

The following questions (6-20) should be answered using chart 12354TR, Long Island Sound - Eastern part, and the supporting publications.

Your draft is 10 feet (3.05 meters). Your height of eye is 35 feet (10.6 meters). Variation is 14° W for the entire plot. The deviation table is as follows.

HDG.MAG	DEV.	HDG.MAG	DEV.	HDG.MAG	DEV.
000°	0°	120°	2° W	240°	3° E
030°	1° W	150°	1° W	270°	3° E
060°	2° W	180°	1° E	300°	2° E
090°	4° W	210°	2° E	330°	1° E

6. At 0345, you set a course to depart New London Harbor. Assuming no set and drift, which standard magnetic compass course must you steer to stay in the middle of the channel?

- A. 175° psc
- B. 187° psc
- C. 190° psc
- D. 192° psc

k - B

7. Which statement regarding the wreck 0.2 mile south of buoys "1" and "2" at the entrance to New London Harbor is true?

- A. The wreck presents a danger to all vessels with drafts in excess of 30 feet.
- B. The wreck is visible above the sounding datum between the months of March and June.
- C. The wreck is shown on the chart, but its actual existence is doubtful.
- D. The wreck was cleared by wire drag in 1982 and will not appear on future charts.

k - C

8. At 0530, your position is LAT 41°13.6' N, LONG 72°08.5' W. What is the color of New London Light?

- A. Red
- B. White
- C. Green
- D. Alternating white and green

k - A

9. From your 0530 position, you set a course of 271° psc with an engine speed of 9 knots. At 0645, Cornfield Safe-Water Buoy is abeam to starboard. What speed have you averaged since 0530?

- A. 7.5 knots
- B. 8.6 knots
- C. 9.0 knots
- D. 9.5 knots

k - B

10. At 0730, your position is LAT 41°10.5' N, LONG 72°32.2' W. From this position you steer course 286° psc with an engine speed of 9.0 knots. What is the approximate depth of water under your keel?

- A. 52 feet (15.8 meters)
- B. 57 feet (17.3 meters)
- C. 62 feet (18.8 meters)
- D. 67 feet (20.3 meters)

k - A

11. The broken magenta line which runs parallel to the shore between Roanoke Point and Mattituck Inlet marks a _____.

- A. pipeline
- B. fish trap area
- C. demarcation line
- D. cable area

k - B

12. Assuming no current, at what time can you expect to be abeam of Townshend Ledge Lighted Buoy?

- A. 0859
- B. 0902
- C. 0905
- D. 0910

k - D

13. At 0730, visibility is 5.5 miles. At what time will you lose sight of Horton Point Light?

- A. It is not visible at 0730
- B. 0751
- C. 0812
- D. 0825

k - B

14. At 0820, you take the following Loran-C readings:

9960-W-14978.0
9960-Y-43993.5
9960-X-26464.1

What are the set and drift since 0730?

- A. Set 069° T, drift 1.2 knots
- B. Set 074° T, drift 1.5 knots

- C. Set 216° T, drift 1.0 knot
- D. Set 232° T, drift 1.3 knots

k - D

15. At 0820, you change course to 301° psc and reduce speed to 7.5 knots. At 0900, you take the following visual bearings:

Branford Reef Light	023° psc
New Haven Light	293° psc
Tweed Airport Aerobeacon	332° psc

Your 0900 position is _____.

- A. LAT 41°11.9' N, LONG 72°50.6' W
- B. LAT 41°11.9' N, LONG 72°49.5' W
- C. LAT 41°12.1' N, LONG 72°48.6' W
- D. LAT 41°12.5' N, LONG 72°44.3' W

k - C

16. At 0900, the current is flooding in a direction of 350° T at 1.2 knots. If your engines are turning RPMs for 9 knots, which course should you steer per standard magnetic compass to make good a course of 297° True?

- A. 302° psc
- B. 311° psc
- C. 317° psc
- D. 319° psc

k - A

17. Which chart would you use for more detailed information on New Haven Harbor?

- A. 12370
- B. 12371
- C. 12372
- D. 12373

k - B

18. What true course and speed did you make good between 0730 and 0900?

- A. 273° T, 8.7 knots
- B. 277° T, 8.4 knots
- C. 279° T, 8.0 knots
- D. 284° T, 7.5 knots

k - B

19. As you enter the New Haven Outer Channel, you sight the outer range markers in line directly ahead. Your heading at this time is 347° psc. What is your compass deviation by observation?

- A. 0.5° East
- B. 3.0° East
- C. 3.5° West
- D. 4.5° East

k - A

20. Which course should you change to per standard magnetic compass as you pass SW Ledge Light to remain in the channel?

- A. 007° psc
- B. 014° psc
- C. 022° psc
- D. 026° psc

k - C

BOOK # 05 QUESTION # 09217

The following questions (6-20) are based on chart 13205TR, Block Island Sound, and the supporting publications.

Your draft is 11 feet(3.4 meters), height of eye is 32 feet(9.7 meters), and the gyro error is 2° W. Use 15° W variation where required. The deviation table is as follows:

HDG.	MAG	DEV.	HDG.	MAG	DEV.	HDG.	MAG	DEV.
000	$^{\circ}$	0	120	$^{\circ}$ 2 W	240	$^{\circ}$ 3 E		
030	$^{\circ}$	1 W	150	$^{\circ}$ 1 W	270	$^{\circ}$ 3 E		
060	$^{\circ}$	2 W	180	$^{\circ}$ 1 E	300	$^{\circ}$ 2 E		
090	$^{\circ}$	4 W	210	$^{\circ}$ 2 E	330	$^{\circ}$ 1 E		

6. At 0227, you take the following radar ranges and bearings:

Bartlett Reef Light	359° T at 2.4 miles
Race Rock Light	083° T at 4.1 miles

What is your 0227 position?

- A. LAT $41^{\circ}14.1'$ N, LONG $72^{\circ}08.2'$ W
- B. LAT $41^{\circ}14.2'$ N, LONG $72^{\circ}08.4'$ W
- C. LAT $41^{\circ}14.0'$ N, LONG $72^{\circ}08.5'$ W
- D. LAT $41^{\circ}14.3'$ N, LONG $72^{\circ}08.5'$ W

k - A

7. At 0227, you are on course 087° T at 10 knots. What course per standard magnetic compass should you steer to make good your true course?

- A. 099° psc
- B. 102° psc
- C. 105° psc
- D. 109° psc

k - C

8. You estimate that you are making 9.3 knots over the ground. At what time will you enter waters governed by the COLREGS?

- A. 0247
- B. 0251
- C. 0255
- D. 0258

k - B

9. At 0337, fog closes in and you anchor under the following radar ranges and bearing.

South tip of Watch Hill Point	3.0 miles
East point of Fishers Island	1.4 miles
Latimer Reef Light	331° T

What is the approximate depth of water at your anchorage?

- A. 83 feet (25.2 meters)
- B. 100 feet (30.3 meters)
- C. 120 feet (36.4 meters)
- D. 135 feet (40.9 meters)

k - B

10. By 1015, visibility has increased to 5.0 miles and you can see Fishers Island. Fishers Island has _____.

- A. low and sandy beaches with salt ponds and marsh grass
- B. sheer cliffs rising from the sea to a high, flat plateau
- C. barren, rocky hills with prominent sandy beaches
- D. sparsely wooded hills and is fringed with shoals to the south

k - D

11. You get underway at 1030. The wind is out of the SSE and you estimate 3² leeway. What course should you steer per gyrocompass to make good a desired course of 075² T?

- A. 074² pgc
- B. 076² pgc
- C. 078² pgc
- D. 080² pgc

k - D

12. Shortly after getting underway, you sight Stonington Outer Breakwater Light in line with Stonington Inner Breakwater Light bearing 000² per gyrocompass. Which statement is TRUE?

- A. The gyro error is 2.5² W.
- B. The variation is 2² E.
- C. The compass error is 16² W.
- D. The deviation is 2² W.

k - A

13. At 1104, Watch Hill Point Light is in line with Stonington Outer Breakwater Light, the range to the south tip of Watch Hill Point is 2.6 miles and the range to the beach is 1.9 miles. You are steering to make good 075² T, speed 10.0 knots. At 1110, you change course to head for a position of LAT 41²05.0' N, LONG 71²50.0' W. What is the true course?

- A. 185²
- B. 187²
- C. 190²
- D. 193²

k - C

14. At 1110, you increase speed to 12 knots. What is your ETA at the new position?

- A. 1157
- B. 1208
- C. 1215
- D. 1219

k - C

15. You can follow what loran reading between your two positions?

- A. There is no loran reading to follow.
- B. 9960-Y-43958
- C. 9960-W-14655
- D. 9960-X-25982

k - D

16. At 1345, you depart from a position 1 mile due east of Montauk Point Light and set course for Block Island Southeast Light at 9 knots. At 1430, you take the following loran readings:

9960-W-14600.8
 9960-Y-43866.3
 9960-X-25912.3

What was the current encountered since 1345?

- A. Set 015², drift 0.5 knot
- B. Set 195², drift 0.5 knot
- C. Set 015², drift 0.7 knot
- D. Set 195², drift 0.7 knot

k - B

17. You are encountering heavy weather. What action should you take based on your 1430 fix?

- A. Alter course to the right, to pass well clear of Southwest Ledge.
- B. Continue on the same course at the same speed.
- C. Slow to 8.3 knots to compensate for the current.
- D. Continue on the same course but increase speed.

k - A

18. At 2100, you set course of 000² T, speed 10 knots from LAT 41²07.0' N, LONG 71²30.0' W. Visibility is 5.5 n.m. What is the earliest time you can expect to sight Point Judith Light?

- A. The light is visible at 2100.
- B. 2114
- C. 2123
- D. 2131

k - B

19. You estimate the current to be 160² T at 1.2 knots. What should your course and speed be in order to make good 000² T at 10 knots?

- A. 358² T at 11.1 knots

- B. 358° T at 09.8 knots
- C. 002° T at 11.2 knots
- D. 002° T at 09.9 knots

k - A

20. If you want to put into Point Judith Harbor of Refuge, what chart should you use?

- A. 13205
- B. 13209
- C. 13217
- D. 13219

k - D

BOOK # 05 QUESTION # 09220

The following questions (6-20) are based on Chart 13205TR, Block Island Sound, and the supporting publications. Your draft is 8 feet (2.4 meters), height of eye is 20 feet (6.1 meters), and the gyro error is 3° E. Use 15° W variation where required. The deviation table is listed below.

HDG.MAG	DEV.	HDG.MAG	DEV.	HDG.MAG	DEV.
000°	1.5° E	120°	1.0° W	240°	1.5° E
030°	2.5° W	150°	0.5° W	270°	2.0° E
060°	2.5° W	180°	0.0	300°	1.0° E
090°	2.0° W	210°	1.0° E	330°	0.5° W

6. At 0630, you pass Buoy "PI" close abeam on the starboard side. You are steering 078° T and are headed directly toward Race Rock Light. At 0654, Little Gull Island Light is bearing 207° T and Race Rock Light is bearing 072° T. What is your 0654 position?

- A. LAT 41°14.0' N, LONG 72°05.3' W
- B. LAT 41°14.2' N, LONG 71°54.6' W
- C. LAT 41°14.4' N, LONG 72°06.8' W
- D. LAT 41°19.0' N, LONG 72°05.2' W

K - A

7. What is your speed from your 0630 position, with Buoy "PI" close abeam, to your 0654 position?

- A. 8.2 knots
- B. 9.3 knots
- C. 10.5 knots
- D. 11.4 knots

K - C

8. At 0700, your gyro alarm sounds. What course should you steer by the standard magnetic compass in order to maintain your original heading of 078° T?

- A. 062° psc
- B. 080° psc
- C. 090° psc
- D. 095° psc

K - D

9. At 0705, with your gyro again functioning properly, you change course to 096° T. At this time Race Rock Light is bearing 000° T at 0.35 mile. You are now governed by which Navigation Rules?

- A. Inland Rules
- B. Local Pilot Rules
- C. International Rules
- D. Coastal Fishery Rules

K - C

10. At 0728, Race Rock Light is bearing 282° T at 3.8 miles, and the closest point on Fishers Island is at a radar range of 2.1 miles. What speed have you been making since you changed course at 0705?

- A. 9.2 knots
- B. 9.6 knots
- C. 10.0 knots
- D. 11.4 knots

K - B

11. At 0728, you change course to 080° T. When steady on course, the standard magnetic compass reads 097° . Which statement is TRUE?

- A. The gyro course is 083° pgc.
- B. The magnetic heading is 090° .
- C. The deviation is 1.0° E.
- D. The magnetic compass error is 17° W.

K - D

12. At 0748, you take the following Loran-C readings:

9960-W-14651.0
9960-X-26034.8
9960-Y-43943.8

What is the approximate depth of water at this position?

- A. 325 feet
- B. 175 feet
- C. 130 feet
- D. 104 feet

K - C

13. At 0748, you change course to 160° T. What loran reading can you follow to remain on this course?

- A. 9960-W-14651.0
- B. 9960-W-14660.0
- C. 9960-Y-43852.0
- D. 9960-Y-43943.8

K - A

14. At 0815, Montauk Pt. Light House is bearing 167° T, Shagwong Pt. has a radar range of 4.5 miles, and Cerberus Shoal "9" Buoy is bearing 284° T. If the engine is making turns for 10 knots, what was the set and drift of the current since 0748?

- A. Set 064° T, drift 1.1 knots
- B. Set 192° T, drift 2.6 knots
- C. Set 240° T, drift 1.4 knots
- D. Set 245° T, drift 2.4 knots

K - D

15. What action should you take to compensate for the above current?

- A. Continue on the same course and speed.
- B. Alter your course to the left.
- C. Slow to 8.5 knots.
- D. Alter your course to the right.

K - B

16. At 0815, visibility is excellent and you can see Montauk Point. Montauk Point is _____.

- A. low and rocky with scattered small pine trees
- B. a low lying wetland
- C. a flat wooded plain
- D. a high sandy bluff

K - D

17. At 0815, you change course to 079° T and head for the entrance of Great Salt Pond on Block Island. To compensate for a northerly wind, you estimate a 5° leeway is necessary. What course should you steer per gyrocompass to make good 079° T?

- A. 079° pgc
- B. 076° pgc
- C. 074° pgc
- D. 071° pgc

K - D

18. At 0845, Montauk Pt. Light is bearing 205° T at a radar distance of 6.6 miles. What is your speed made good from your 0815 position

- A. 8.4 knots
- B. 9.2 knots
- C. 10.0 knots
- D. 10.5 knots

K - A

19. As you head toward Great Salt Pond, visibility is unlimited. At what time will you lose sight of Montauk Pt. Light?

- A. 0905
- B. 0928
- C. 0950
- D. It will remain visible to Great Salt Pond.

K - D

20. Which chart should you use to enter Great Salt Pond?

- A. 13214
- B. 13205
- C. 13217
- D. 13207

K - C

BOOK # 05 QUESTION # 09221

The following problems (6-20) are based on Chart 12354TR, Long Island Sound, and the supporting publications. Your vessel's draft is 12 feet (3.7 meters), and

your height of eye is 24 feet (7.3 meters). Use 14° W variation where required. The deviation table is:

HDG.MAG	DEV.	HDG.MAG	DEV.	HDG.MAG	DEV.
000°	0°	120°	2° W	240°	3° E
030°	1° W	150°	1° W	270°	3° E
060°	2° W	180°	1° E	300°	2° E
090°	4° W	210°	2° E	330°	1° E

6. Your position is LAT 40°59.0' N, LONG 73°06.2' W. What is the course per standard magnetic compass to New Haven Harbor Lighted Whistle Buoy "NH"?

- A. 035°
- B. 046°
- C. 049°
- D. 052°

K - D

7. You depart from the position in question 6 at 2114 and make good 12 knots on a course of 040° T. At what time will you sight New Haven Light if the visibility is 11 miles?

- A. The light is visible at 2114.
- B. 2140
- C. 2152
- D. 2159

K - D

8. At 2142, you take the following bearings:

Stratford Point Light	331° T
Stratford Shoal Middle Ground Light	280° T
Old Field Point Light	223° T

What is your 2142 position?

- A. LAT 41°03.0' N, LONG 73°01.7' W
- B. LAT 41°03.1' N, LONG 73°02.1' W
- C. LAT 41°03.1' N, LONG 73°01.3' W
- D. LAT 41°03.3' N, LONG 73°01.9' W

K - A

9. What was the speed made good between 2114 and 2142?

- A. 12.3 knots
- B. 12.0 knots

- C. 11.7 knots
- D. 11.1 knots

K - D

10. At 2142, you change course to make good 030° T and increase speed to 14 knots. You rendezvous with another vessel and receive fresh supplies while off New Haven Harbor Lighted Whistle Buoy "NH". What is the light characteristic of this buoy?

- A. — .
- B. — —
- C. . —
- D. . .

K - C

11. At 0109 you get underway, and at 0112 you take the following Loran-C readings:

9960-W-15026.9
9960-X-26536.9
9960-Y-44015.7

What is your 0112 position?

- A. LAT $41^{\circ}11.2'$ N, LONG $72^{\circ}51.7'$ W
- B. LAT $41^{\circ}11.4'$ N, LONG $72^{\circ}50.5'$ W
- C. LAT $41^{\circ}11.4'$ N, LONG $72^{\circ}51.3'$ W
- D. LAT $41^{\circ}11.8'$ N, LONG $72^{\circ}51.5'$ W

K - C

12. At 0112, what is the approximate depth under the keel?

- A. 38 feet (11.5 meters)
- B. 47 feet (14.2 meters)
- C. 51 feet (15.5 meters)
- D. 57 feet (17.3 meters)

K - A

13. At 0112, you are on course 124° T and turning for 12.0 knots. What course will you make good if the current is 255° T at 1.2 knots?

- A. 132°
- B. 129°
- C. 120°
- D. 118°

K - B

14. Branford reef is _____ .

- A. completely submerged at all stages of the tide
- B. a hard sand shoal marked with a light
- C. surrounded by rocks awash at low water spring tides
- D. a small, low, sandy islet surrounded by shoal water

K - A

15. At 0112, the radar range to Branford Reef Light is 2.9 miles. At 0125, the range is 3.6 miles. What is the position of your 0125 running fix if you make good 124° T at 12 knots?

- A. LAT $41^{\circ}09.7'$ N, LONG $72^{\circ}48.1'$ W
- B. LAT $41^{\circ}09.7'$ N, LONG $72^{\circ}48.7'$ W
- C. LAT $41^{\circ}09.8'$ N, LONG $72^{\circ}47.2'$ W
- D. LAT $41^{\circ}10.2'$ N, LONG $72^{\circ}47.7'$ W

K - A

16. At 0130, your position is LAT $41^{\circ}09.3'$ N, LONG $72^{\circ}46.9'$ W when you change course to 086° T. If you make good 086° T, what is the closest point of approach to Twenty-Eight Foot Shoal Lighted Buoy?

- A. 0.9 mile
- B. 1.0 mile
- C. 1.1 miles
- D. 1.2 miles

K - A

17. At 0200, you take the following bearings:

Falkner Island Light	004.5° T
Stone Island Reef Light	054.0° T
Horton Point Light	115.0° T

What were the set and drift from 0130?

- A. 085° at 0.5 knot
- B. 090° at 1.0 knot
- C. 260° at 1.0 knot
- D. There is no current.

K - C

18. What is the distance from your 0200 position to the point where Twenty-Eight Foot Shoal Lighted Buoy is abeam to starboard?

- A. 6.6 miles
- B. 6.9 miles
- C. 7.1 miles
- D. 7.3 miles

K - B

19. The shoreline along Rocky Point should give a good radar return because _____ .

- A. the lookout tower is marked with radar reflectors
- B. of offshore exposed rocks
- C. submerged reefs cause prominent breakers
- D. the shore is bluff and rocky

K - D

20. You sight Bartlett Reef Light in line with New London Harbor Light bearing 043° pgc. You are heading 088° pgc and 098.5° per standard magnetic compass at the time of the observation. Which statement is TRUE?

- A. The true heading at the observation was 090° .
- B. The deviation is 1.5° E by observation.
- C. The magnetic compass error is 9.5° W.
- D. The gyro error is 2° E.

K - B

BOOK # 05 QUESTION # 09222

The following problems (6-20) are based on chart 13205TR, Block Island Sound, and the supporting publications. Use 15° W variation and 2° E gyro error. Your draft is 12 feet and your height of eye is 16 feet.

DEVIATION TABLE

HDG.MAG	DEV.	HDG.MAG	DEV.	HDG.MAG	DEV.
000°	2.0° E	120°	1.0° E	240°	3.0° W
030°	3.0° E	150°	1.0° W	270°	1.5° W
060°	4.0° E	180°	2.0° W	300°	0
090°	2.0° E	210°	3.5° W	330°	1.5° E

6. At 0520, you take the following observations:

Point Judith Light	032° pgc
Point Judith Harbor of Refuge	
Main Breakwater Center Light	308° pgc

What is the position of your 0520 fix?

- A. LAT 41°20.8' N, Long 71°30.3' W
- B. LAT 41°20.8' N, Long 71°29.7' W
- C. LAT 41°20.6' N, Long 71°30.0' W
- D. LAT 41°20.5' N, Long 71°29.8' W

K - B

7. Point Judith Harbor of Refuge _____.

- A. is used mostly by towing vessels
- B. has a maximum depth of 14 feet at MHW
- C. is easily accessible in heavy southerly seas
- D. is entered through the East Gap or the West Gap

K - D

8. At 0520 you are on course 243° pgc at 12 knots. What is the course per standard magnetic compass?

- A. 262° psc
- B. 258° psc
- C. 233° psc
- D. 227° psc

K - A

9. The coastline between Point Judith and Watch Hill is _____.

- A. steep with rocky bluffs
- B. low and marshy
- C. sandy and broken by rocky points
- D. heavily forested

K - C

10. In clear weather, how far away will you sight Point Judith Light?

- A. 9.2 nm
- B. 10.6 nm
- C. 12.3 nm
- D. 14.0 nm

K - D

11. At what time will you cross the 60 foot curve if you make good 12 knots?

- A. 0528
- B. 0534
- C. 0541
- D. 0544

K - A

12. The two wavy magenta lines running to Green Hill Point represent _____.

- A. recommended approaches to Green Hill Point
- B. areas of unreliable loran readings
- C. prohibited fishing areas
- D. submarine cables

K - D

13. At 0600 your loran reads:

9960-W-14542.5
9960-X-25909.5
9960-Y-43950.0

What is your 0600 position?

- A. LAT 41°18.1' N, LONG 71°38.3' W
- B. LAT 41°18.3' N, LONG 71°38.7' W
- C. LAT 41°18.4' N, LONG 72°38.1' W
- D. LAT 41°18.5' N, LONG 71°38.9' W

K - B

14. What was the current between 0520 and 0600?

- A. 201° at 0.7 knot
- B. 201° at 1.0 knot
- C. 021° at 1.0 knot
- D. 021° at 1.5 knots

K - D

15. From your 0600 position, what is the course per gyrocompass to leave Watch Hill Light abeam to starboard at 2.0 miles if a southerly wind is producing 3° of leeway?

- A. 252° pgc
- B. 256° pgc
- C. 258° pgc
- D. 262° pgc

K - A

16. At 0645, Watch Hill Point (left tangent) bears 314.5° T at 2.75 miles. What was the speed made good between 0600 and 0645?

- A. 8.1 knots
- B. 9.8 knots
- C. 10.7 knots
- D. 11.4 knots

K - C

17. At 0705, you take the following bearings:

Watch Hill Light	030.5° pgc
Latimer Reef Light	329.0° pgc
Race Rock Light	262.0° pgc

What was the true course made good between 0645 and 0705?

- A. 252° T
- B. 256° T
- C. 263° T
- D. 266° T

K - B

18. At 0705, you change course to head for The Race. You wish to leave Race Rock Light bearing due north at 0.4 mile. If the current is 100° T, at 2.8 knots, and you are turning for 12.0 knots, what course (pgc) should you steer?

- A. 250° pgc
- B. 255° pgc
- C. 263° pgc
- D. 267° pgc

K - C

19. You are bound for New London. Where will you cross the demarcation line and be governed by the Inland Rules of the Road?

- A. You are already governed by the Inland Rules.
- B. In the Race
- C. Above the Thames River Bridge
- D. You will not be governed by the Inland Rules.

K - B

20. In order to check your compasses, you sight North Dumpling Island Light in line with Latimer Reef Light bearing 074° pgc. The helmsman was steering 303° pgc and 315° per standard magnetic compass at the time. Which of the following is TRUE?

- A. The gyro error is still 2° E.
- B. The deviation based on the observation is 15° W.
- C. The magnetic compass error is 12° W.
- D. The true line of the range is 072°.

K - A

BOOK # 05 QUESTION # 09400

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

At 0630, on 15 March, you are upbound on the Lower Mississippi River passing Kaiser Aluminum & Chemical Corp. (mile 234.0 AHP).

1. The latest available information on the channel conditions above Baton Rouge that includes the latest buoy information, as well as recommended courses, is found in the _____.

- A. Corps of Engineers maps
- B. Notice to Mariners Channel Report
- C. Sailing Directions
- D. Waterways Journal

k - B

2. You are approaching Springfield Lt. (mile 245.6 AHP) downriver from Profit Island. Which of the following statements is TRUE?

- A. Profit Island Chute is open to navigation and is a shortcut for single-barge tows.
- B. Tow length must not exceed 600 feet to use Profit Island Chute.
- C. Profit Island Chute is closed to navigation.
- D. Tows must navigate towards left ascending bank when passing Profit Island Chute.

k - C

3. At 1042, on 16 March, you are passing the Vicksburg gage (mile 437.0 AHP). What has been the average current since 0630, 15 March, if you have been making turns for 8.0 mph?

- A. 0.2 mph

- B. 0.5 mph
- C. 0.8 mph
- D. 1.2 mph

k - C

4. Which of the following statements regarding buoys on the Mississippi River is TRUE?

- A. The positions of river buoys can be found in the latest edition of Light List-Vol. V.
- B. Buoy positions on the chart are approximate.
- C. The buoys are maintained on station year round.
- D. The buoys do not shift positions due to permanent moorings.

k - B

5. What is the mile point of the Arkansas City gage?

- A. 554.2 AHP
- B. 556.8 AHP
- C. 560.0 AHP
- D. 562.8 AHP

k - A

6. The highest point on your towboat is 53 feet above the water, and the Helena gage (mile 663 AHP) reads 6.7 feet. What is the vertical clearance when you pass under the B-span of the Helena Highway Bridge in Helena?

- A. 55.6 feet
- B. 59.9 feet
- C. 62.5 feet
- D. 64.1 feet

k - A

7. You are passing the Memphis gage at 0405, 18 March. If you are turning for 8 mph and estimate the current at 0.9 mph, what is your ETA at Cairo?

- A. 0447, 19 Mar
- B. 1103, 19 Mar
- C. 1518, 19 Mar
- D. 1808, 19 Mar

k - B

8. At what time would you listen to VHF Channel 22A (157.1 MHz) for information concerning the stage of the river between Memphis and Cairo?

- A. 1115
- B. 1235
- C. 1300
- D. 1815

k - C

9. As you approach French Point Light (mile 915.4 AHP), you see 2 daymarks on the structure. What significance do the daymarks have?

- A. They indicate the starboard side of the channel from seaward and a channel crossing.
- B. They indicate the starboard side of the channel from seaward and midchannel fairway.
- C. They indicate the port side of the channel from seaward and a range marking.
- D. They indicate the port side of the channel and a channel crossing.

k - A

10. What is the distance from Cairo to Arkansas City?

- A. 28 miles
- B. 110 miles
- C. 292 miles
- D. 402 miles

k - D

BOOK # 05 QUESTION # 09401

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

On 22 September, you are making up your tow at Robin Hood Fleeting Service in Baton Rouge, LA (mile 227.8 AHP). You get underway at 0842 enroute to Cairo, IL, with a mixed tow.

1. You are turning for 9.8 mph and estimate the current at 1.2 mph. What is your speed over the ground?

- A. 8.2 mph
- B. 8.6 mph
- C. 9.8 mph
- D. 11.0 mph

k - B

2. What is your ETA at the Helena Highway Bridge?

- A. 0458, 24 Sept
- B. 0926, 24 Sept
- C. 1109, 24 Sept
- D. 1344, 24 Sept

k - C

3. What daymark should you see as you approach Lobdell Light (mile 238.1 AHP)?

- A. Green diamond
- B. Green square
- C. Green triangle
- D. Red square

k - A

4. You pass Ratcliff Light (mile 289.8) at 1612. What was your average speed since leaving Baton Rouge?

- A. 7.3 mph
- B. 7.6 mph
- C. 8.0 mph
- D. 8.3 mph

k - D

5. At 1612 you increase speed to make good 8.9 mph. At 1942 you are _____.

- A. abeam of Old River Control Structure Light
- B. entering the Vicksburg District of the U.S. Army Corps of Engineers
- C. at Palmetto Point
- D. at Latitude 31°10' N

k - B

6. The charts show two dashed lines crossing the river just south of St. Catherine Bar Light. What does this indicate?

- A. Overhead power lines
- B. Louisiana-Mississippi ferry crossings
- C. Two submerged oil pipelines

D. Two railroad trestles

k - C

7. The Natchez gage reads 8.6 feet. The high point on your towboat is 38 feet above water. What is the vertical clearance when you pass under the Natchez Highway Bridge?

- A. 79.0 feet
- B. 71.3 feet
- C. 65.2 feet
- D. 59.1 feet

k - A

8. What organization has an installation at the uppermost end of Carthage Revetment?

- A. City of Natchez (waterfront)
- B. International Paper Co.
- C. U.S. Army Corps of Engineers
- D. U.S. Coast Guard

k - D

9. If the gage at the Greenville Highway Bridge reads 10.8 feet, what is the water level in relation to the low water reference plane (LWRP)?

- A. 0.5 feet below the LWRP
- B. 10.8 feet below the LWRP
- C. 10.8 feet above the LWRP
- D. 22.1 feet above the LWRP

k - A

10. What does the red diamond with the letter "S" indicate just below the entrance to Greenville Harbor (536.7 miles AHP)?

- A. Location of a sunken wreck
- B. Location where latest steering directions may be obtained
- C. Shoaling area
- D. Speed zone

k - B

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

On 25 March, you depart the Kaiser Aluminum Docks at mile 234.0 AHP with 12 barges enroute to St. Louis, MO (mile 175 UMR). Your engines are turning for 7.5 MPH in still water.

1. What is the total length of the trip?

- A. 753.8 miles
- B. 846.7 miles
- C. 894.8 miles
- D. 922.5 miles

k - C

2. You estimate the current as 3.0 mph. What is the speed over the ground?

- A. 4.5 mph
- B. 7.2 mph
- C. 7.5 mph
- D. 10.5 mph

k - A

3. You will pass the first gage at _____.

- A. Profit Island
- B. Bayou Sara
- C. Baton Rouge
- D. Red River Landing

k - B

4. What is the milepoint of the Red River Landing Gage?

- A. 297.0 AHP
- B. 301.4 AHP
- C. 302.4 AHP
- D. 304.2 AHP

k - C

5. As you pass Fort Adams (311.4 AHP) you observe a flashing amber light on the left bank ahead. This indicates that you should _____.

- A. keep as close to the left bank as safety permits

- B. keep as close to the right bank as safety permits
- C. proceed with caution as there is construction work being done on the revetment
- D. proceed with caution as the river is congested around the bend

k - B

6. The highest point on your towboat is 47 feet above water. The Natchez gage (mile 363.3 AHP) reads 18.7 feet. What is the vertical clearance when you pass under the Natchez (westbound) Hwy. Bridge?

- A. 36.5 feet
- B. 59.9 feet
- C. 66.0 feet
- D. 78.6 feet

k - B

7. You pass under the Natchez bridge (363.3 AHP) at 1740, on 27 March, and estimate the current to be 2.3 mph. What is your ETA at St. Louis if you continue to turn for 7.5 mph?

- A. 2347, 30 March
- B. 2344, 31 March
- C. 2148, 1 April
- D. 2053, 2 April

k - D

8. As you approach Cannon Point Light (mile 418.3 AHP), what daymark will you see on the light structure?

- A. Green diamond
- B. White square
- C. Red triangle
- D. Red diamond

k - D

9. The small red and white striped rectangle to the north of Oak Bend Lt. (425.6 AHP) indicates a _____.

- A. river stage gage
- B. commercial dock
- C. loading crane at the freight terminal
- D. ferry landing

k - C

10. As you approach mile 660.2 AHP, you see a rotating amber light on the Arkansas - LA chemical Dock. This is a _____.

- A. navigational light used during high water conditions
- B. light indicating that the Helena Gage is above flood stage
- C. light indicating that a hazardous chemical has been accidentally released
- D. light required by the Rules of the Road for the head of a tow moored at the docks

k - C

BOOK # 05 QUESTION # 09403

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

On 16 October, you depart the Formosa Plastics mooring facility at mile 233.5 AHP with six loaded tankbarges enroute to the Agrico Chemical dock, Herculaneum, MO (Mile 153.4 UMR). Your engines are making turns for 6.5 mph in still water.

1. What is the total length of the trip?

- A. 910.6 miles
- B. 901.4 miles
- C. 900.7 miles
- D. 873.7 miles

k - D

2. You estimate the current at 3.0 mph. What is the speed over the ground?

- A. 3.5 mph
- B. 4.5 mph
- C. 7.5 mph
- D. 9.5 mph

k - A

3. What are the dimensions of the channel maintained at Baton Rouge, LA?

- A. 30 feet x 300 feet
- B. 40 feet x 300 feet
- C. 30 feet x 500 feet
- D. 40 feet x 500 feet

k - D

4. You pass Springfield Bend Lt. (244.8 AHP) at 1242, on 17 October, and estimate the current will average 2.5 mph for the remainder of your trip. What is your ETA at the mouth of the Ohio River if you are making turns for 10.5 mph?

- A. 1905, 19 October
- B. 2122, 19 October
- C. 0519, 21 October
- D. 0847, 21 October

k - C

5. As you pass under the Natchez-Vidalia Dual Bridge, the gage on the bridge reads -3.6. If the highest point on your vessel is 62 ft. above the water, what is your vertical clearance?

- A. 60.0 feet
- B. 63.6 feet
- C. 67.2 feet
- D. 122.0 feet

k - C

6. What are the color and shape of Sunnyside Daymark at mile 530.6 AHP?

- A. Green - Diamond
- B. Green - Square
- C. Red - Triangle
- D. Red - Square

k - B

7. At 1227, on 19 October, you pass under the Greenville Highway Bridge (mile 531.3 AHP). What speed must you average to arrive at Jimmy Hawken Light (mile 663.5 AHP) at 0930 the following day?

- A. 5.2 mph
- B. 5.6 mph
- C. 5.9 mph
- D. 6.3 mph

k - D

8. Which of the following statements regarding aids to navigation shown in the Corps of Engineers map book is TRUE?

- A. The U.S. Army Corp. of Engineers is responsible for placing and maintaining all aids to navigation.

- B. Buoys should always be given as wide a berth in passing as possible.
- C. Buoy positions as shown on the chart are exact.
- D. Lights and daymarks are always shown in their exact location.

k - B

9. The Delta-Friar Point revetment on the LMR extends from mile _____.

- A. 657.3 - 652.2 LDB
- B. 652.8 - 649.6 RDB
- C. 648.5 - 645.5 LDB
- D. 645.6 - 641.4 RDB

k - A

10. What is the distance from Greenville, MS, to St. Louis, MO, on the Mississippi River System?

- A. 566 miles
- B. 597 miles
- C. 733 miles
- D. 832 miles

k - B

BOOK # 05 QUESTION # 09404

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

At 1745, on 25 August, you depart Memphis Harbor, McKellar Lake (mile 726.0 AHP - LMR), enroute to Baton Rouge, LA, with a tow of twelve empty gasoline barges.

1. You have received orders to proceed to the Amoco Pipeline Co. (253.6 AHP) above Baton Rouge. If your vessel is making turns for 9 mph with an estimated average current of 1.5 mph, what is your ETA at the Amoco docks?

- A. 1444, 27 Aug
- B. 2214, 27 Aug
- C. 0844, 28 Aug
- D. 1454, 28 Aug

k - A

2. The highest point on your towboat is 52 feet above the water, and the Helena Gage reads +9.6 feet. What is the vertical clearance when you pass under the A-span of the Helena Highway Bridge?

- A. 49.8 feet
- B. 53.9 feet
- C. 58.0 feet
- D. 73.1 feet

k - C

3. You are in charge of a vessel that damages an aid to navigation established and maintained by the United States. Which statement is TRUE?

- A. You must take the aid in tow and deliver it to the nearest Coast Guard, Marine Safety Office.
- B. You must report the allision to the nearest Corp. of Engineers Office.
- C. You may wait until you reach your destination before reporting the allision to the U.S. Coast Guard.
- D. You must report the accident to the nearest Officer in Charge, Marine Inspection.

k - D

4. At 2342, on 25 August, you pass under the Helena Highway Bridge (661.7 AHP). What has been the average speed of the current since departing Memphis Harbor, McKellar Lake, if you have been making turns for 9 mph?

- A. 1.8 mph
- B. 2.1 mph
- C. 4.4 mph
- D. 5.6 mph

k - A

5. What is the distance in river miles, from the new mouth of the White River to the RR and Hwy bridge at Baton Rouge, LA?

- A. 358 miles
- B. 365 miles
- C. 370 miles
- D. 384 miles

k - B

6. The Clinch River empties into which river?

- A. Arkansas
- B. Mississippi
- C. Ohio
- D. Tennessee

k - D

7. As you pass under the Greenville Highway Bridge, you estimate the current as 4.5 mph. What is the speed over the ground, if your vessel is making turns for 9 mph?

- A. 9.5 mph
- B. 13.5 mph
- C. 14.5 mph
- D. 16.5 mph

k - B

8. As you approach Cottonwood Chute Light (mile 530.5 AHP), which type of daymark would you see on the light structure?

- A. Red diamond
- B. Red triangle
- C. Green square
- D. Green diamond

k - A

9. You are downbound, passing by Natchez, Miss., when you observe on your Mississippi River map a diamond with an "S" inside on the left bank below the Natchez Hwy Bridge. This indicates a _____.

- A. traffic signal
- B. location for obtaining latest steering directions
- C. warning sign to downbound traffic that the channel soon crosses very close to the right bank
- D. safety landing

k - B

10. What are the dimensions of Old River Lock, on the Lower Mississippi River?

- A. 1202 feet x 84 feet
- B. 1185 feet x 75 feet
- C. 760 feet x 75 feet
- D. 425 feet x 75 feet

k - B

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

At 1707, on 23 May, you get underway from mile 234.2 AHP enroute to Louisville, KY (mile 612.6 OR).

1. What is the length of the trip?

- A. 1088.0 miles
- B. 1332.2 miles
- C. 1334.6 miles
- D. 1566.4 miles

k - A

2. After you get underway, what is the first river gage you will pass?

- A. Head of Passes
- B. Baton Rouge
- C. Bayou Sara
- D. Red River Landing

k - C

3. The Red River Landing gage reads 5.2 feet. Which of the following statements is TRUE?

- A. River level is below the Low Water Reference Plane.
- B. The depth over revetment at Old River is 25.2 ft.
- C. The depth over Old River Lock sill is greater than 11 ft.
- D. This gage reading is at a higher elevation than the same reading on the gage at Head of Passes.

k - A

4. At 0922, on 24 May, you are abreast the St. Catherine Bar Lt. (mile 348.6 AHP). If you are turning for 8.0 mph, what is the current?

- A. 1.0 mph
- B. 1.4 mph
- C. 2.0 mph
- D. 7.0 mph

k - A

5. What daymark will you see as you approach Warnicott Bar Lt. (mile 351.3 AHP)?

- A. Red diamond
- B. Red triangle
- C. Green square
- D. White square

k - C

6. You pass Warnicott Bar Lt. at 1146, 24 May. What is your ETA off the Mhoon Landing gage if you average 6.5 mph?

- A. 0152, 26 May
- B. 0426, 26 May
- C. 1528, 26 May
- D. 0909, 27 May

k - C

7. What town is located at mile 389.8 AHP?

- A. Whitehall
- B. Belmont
- C. St. James
- D. Rodney

k - D

8. The blue colored inlet below Grand Gulf Island Light (404.9 AHP) is a _____.

- A. reservoir
- B. fish hatchery
- C. turning basin
- D. dry dock

k - C

9. The Greenville gage reads 10.6 feet. The high point of your towboat is 54 feet above water. What is the vertical clearance as you pass under the Greenville Highway Bridge?

- A. 44.4 feet
- B. 54.2 feet
- C. 65.5 feet
- D. 75.4 feet

k - C

10. In addition to the C of E maps, data on bridge clearances may be found in the _____.

- A. C of E Regulations
- B. Waterways Journal
- C. Light List
- D. Channel Report

k - C

BOOK # 05 QUESTION # 09406

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

On 3 January you get underway from Cambalick Dock, Morganza, La. mile (278.3 AHP) enroute to the Socony - Mobil Oil Docks, LDB, in St. Louis.

1. What is the length of the trip?

- A. 879.6 miles
- B. 878.9 miles
- C. 851.9 miles
- D. 726.0 miles

k - C

2. What are the dimensions of the Old River Lock on the lower Old River (304 AHP)?

- A. 1185 x 75 feet
- B. 1195 x 75 feet
- C. 1200 x 75 feet
- D. 1202 x 84 feet

k - A

3. At 2126, you pass Morganza Bend Light (mile 278.4 AHP). At 0122, 4 January, you pass Red River Landing Gage (302.4 AHP). You have been turning for 7.5 mph. What is the current?

- A. 1.4 MPH
- B. 1.8 MPH
- C. 2.7 MPH
- D. 6.2 MPH

k - A

4. The gage at Red River Landing reads 22.2 feet. How many feet is this above the low water reference plane?

- A. 10.6 ft
- B. 11.6 ft
- C. 22.2 ft
- D. 32.8 ft

k - B

5. The river will be temporarily closed to navigation at mile 531.3 AHP due to repairs to the bridge. This will occur at 1300, 5 January, and last for six hours. What minimum speed over the ground must you make from Red River Landing Gage in order not to be delayed?

- A. 6.0 mph
- B. 6.4 mph
- C. 6.8 mph
- D. 7.3 mph

k - B

6. What type of daymark will you see as you approach Joe Pierce Light (mile 334.4 AHP)?

- A. Private aid - no daymark
- B. Red square
- C. Red diamond
- D. Red triangle

k - D

7. What is the vertical clearance of the Natchez Highway Bridge (westbound) when the river level is the same as the Low Water Reference Plane?

- A. 102.2 ft
- B. 108.3 ft
- C. 119.5 ft
- D. 125.6 ft

k - C

8. The Natchez gage reads 20.6 feet. The high point on your towboat is 47 feet above the water. What is the vertical clearance as you pass under the Natchez Highway Bridge?

- A. 58.0 feet
- B. 64.1 feet
- C. 72.5 feet
- D. 78.6 feet

k - A

9. In order to determine what buoys, if any, are in place at Concordia Bar crossing (mile 596.0 AHP), what should you check?

- A. Bulletin board at the Rosedale gage
- B. Waterways Journal
- C. Channel Report
- D. Light List

k - C

10. The area between Island 67 Upper Light (mile 623.1 AHP) and Sunflower Cut-off Foot Light (mile 624.8 AHP) is known as a _____.

- A. transit
- B. chute
- C. crossing
- D. slough

k - C

BOOK # 05 QUESTION # 09407

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

On 21 September, you are making up your tow at the fleeting area in Cairo, IL (mile 980.6 Ohio River). You get underway at 0952 enroute to New Orleans with a mixed tow.

1. You are turning for 7.8 mph and estimate the current at 1.0 mph. What is your speed over the ground?

- A. 8.8 mph
- B. 7.9 mph
- C. 7.8 mph
- D. 6.8 mph

k - A

2. What is your ETA at the Memphis - Arkansas Highway Bridge?

- A. 0828, 22 Sept
- B. 1052, 22 Sept
- C. 1405, 22 Sept
- D. 1813, 22 Sept

k - B

3. What daymark should you see as you approach Parker Landing Light (mile 924.0 AHP)?

- A. Green square
- B. Green triangle
- C. Red and green rectangle
- D. Green diamond

k - D

4. You pass Morrison Towhead Light (mile 890.5 AHP) at 1723. What was your average speed since leaving Cairo?

- A. 7.5 mph
- B. 7.8 mph
- C. 8.5 mph
- D. 8.8 mph

k - C

5. At 1723 you increase speed to make good 9.2 mph. At 1937 you have a daymark on your port beam. What daymark is this?

- A. Tiptonville Ferry Landing Daymark
- B. Tiptonville Light
- C. Merriwether Bend Light and Daymark
- D. Alaska Light and Daymark

k - C

6. The charts show a circle with two red quadrants located at mile 846.0 AHP. What does this indicate?

- A. Hazardous chemical dock
- B. Bulletin Board
- C. Betz-Tipton Veneers Terminal
- D. River gage

k - D

7. The Helena gage reads 9.4 feet. The high point on your towboat is 46 feet above water. What is the vertical clearance when you pass under the Helena Highway Bridge?

- A. 56.0 feet

- B. 64.2 feet
- C. 79.5 feet
- D. 106.1 feet

k - B

8. What company does NOT have a marine facility along the river bank in Helena (mile 658 to 665 AHP)?

- A. Helena Grain Co.
- B. Helena Terminal and Warehouse Co., Inc.
- C. Riceland Food Corp.
- D. Texas Eastern Pipeline Co.

k - A

9. If the Rosedale gage reads -0.5 feet, what is the water level in relation to the low water reference plane?

- A. 0.5 foot below the plane
- B. 0.5 foot above the plane
- C. 2.5 feet above the plane
- D. 3.5 feet below the plane

k - D

10. Which of the following describes the DeSoto Terminal Co. facility at mile 570.6 AHP?

- A. Mooring dolphins in midstream and a conveyor
- B. Three mooring dolphins along the revetment and a conveyor on pilings
- C. A wingdam creating a sheltered mooring and two dolphins
- D. A submerged intake extending out 300 feet to mooring dolphins

k - B

BOOK # 05 QUESTION # 09408

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

At 1015 on 16 April, you are at the Amoco Pipeline Co. Docks (253.6 AHP), when you get underway, enroute Institute, WV, with a tow of eight barges carrying molten sulphur.

1. What is the distance from the Amoco Docks at Baton Rouge, LA, to the mouth of the Ohio River?

- A. 700.2 miles

- B. 727.9 miles
- C. 953.5 miles
- D. 981.5 miles

k - A

2. You are turning for 10 mph, approaching Angola, LA. Angola reports that the current at Red River Landing is estimated at 4.5 MPH. Which of the following statements is TRUE?

- A. You are making 14.5 mph over the ground.
- B. You should expect to encounter vessels crossing the river at mile 300.5 AHP.
- C. You would expect to find a more favorable current near the broken red line in the river.
- D. Hog Pt. Light and Hog Pt. Lower Light may be used as range lights when entering Shreves cut-off.

k - B

3. As you approach Shreves cut-off you see Red River Landing Gage (302.4 AHP) which reads 6.2 feet. Which of the following statements is TRUE?

- A. This reading is at the same elevation as the 6.2 ft. mark on the gage at Head of Passes.
- B. This reading is 6.2 ft. above the Low Water Reference Plane.
- C. The depth of water at Red River Landing is 6.2 ft.
- D. A vessel drawing 7 ft. would be able to pass through the locks at Lower Old River.

k - A

4. You pass Red River Gage at 2015 on 16 April and estimate the current will average 3.5 mph for the remainder of the time on the Mississippi River. What is your ETA at the mouth of the Ohio River if you continue to turn for 10 mph?

- A. 1445, 20 April
- B. 1830, 20 April
- C. 0028, 21 April
- D. 0821, 21 April

k - C

5. What is the vertical clearance between the highest point of your towboat, if it is 58 feet above the water, and if the Natchez Gage reads 28.13 feet when passing under the Natchez Upper Highway Bridge?

- A. 15.9 feet
- B. 33.2 feet

- C. 39.3 feet
- D. 45.4 feet

k - C

6. In high water conditions, which publication would you consult for the latest information on buoys between Baton Rouge and Cairo?

- A. U.S.C.G. Notice to Mariners Channel Report
- B. U.S.C.G. Light List
- C. C of E Navigation Chart
- D. List of Buoys and Daymarks

k - A

7. As you approach Giles Bend Cutoff Light (mile 367.7 LDB), what type of daymark would you see on the light structure?

- A. None
- B. Red triangle
- C. Red diamond
- D. Red square

k - C

8. At 0305 on 18 April, you pass under the Greenville Bridge (mile 531.3 AHP). What was your average speed since departing Amoco Pipeline Co. Docks (253.6 AHP)?

- A. 6.2 mph
- B. 6.5 mph
- C. 6.8 mph
- D. 7.2 mph

k - C

9. A stretch where the channel changes from one side of the river to the other is called a _____.

- A. passing
- B. transit
- C. transfer
- D. crossing

k - D

10. After you enter the Ohio River at Cairo, which span of the Illinois Central RR Bridge would you select to pass under?

- A. Northbank span only
- B. Northbank or Southbank
- C. Southbank span only
- D. Any span is navigable

k - A

4035210

The following questions (1-10) are based on the C of E Mississippi River Maps (Cairo to the Gulf) and the Light List.

At 1835 on 10 August, you are downbound on the Upper Mississippi River at St. Louis, MO (mile 184.0 UMR), with a mixed tow of 6 loaded, covered hopper barges, 2 loaded tank barges, and 2 empty hopper barges.

1. You have orders to drop off the empties at the fleeting area in Cairo and add five loaded barges to your tow. If you are turning for 8 mph and estimate the current at 0.5 mph, what is your ETA at Cairo?

- A. 2352, 10 Aug
- B. 1327, 11 Aug
- C. 1614, 11 Aug
- D. 1928, 11 Aug

k - C

2. You complete changing out your tow and get underway enroute Memphis to deliver 2 tank barges. What is the distance you must travel from Cairo Point Light to the Lion Oil Refining Co. Docks in Memphis?

- A. 147.2 miles
- B. 178.6 miles
- C. 219.5 miles
- D. 734.3 miles

k - C

3. As you approach Kate Aubrey Bar Light (mile 788 AHP), your searchlight will show what type of marking at the light?

- A. Green triangle
- B. Red and green banded square
- C. Green square daymark
- D. Diamond-shaped green daymark

k - C

4. The highest point on your towboat is 57 feet above the water, and the Memphis Gage reads +1.3 feet. What is the vertical clearance when you pass under the B-span of the Hernando Desoto Bridge in Memphis?

- A. 51.8 feet
- B. 53.3 feet
- C. 55.7 feet
- D. 112.7 feet

k - A

5. At 0230 on 13 August, you are at mile 610.5 AHP when you see about a mile ahead two separate white lights on the water near the left bank. There is a red light on the bank in the same vicinity. What can you expect to see when you come abreast of these lights?

- A. Privately maintained buoys at a yacht club
- B. Government buoys marking the Hurricane Point dikes
- C. A pipeline discharging dredge spoil
- D. Barges moored at the River Grain Co.

k - D

6. What is the milepoint of the Rosedale Gage?

- A. 554 AHP
- B. 587 AHP
- C. 592 AHP
- D. 598 AHP

k - C

7. Which of the following statements concerning the buoys on the Mississippi River is TRUE?

- A. The buoys are maintained on station year round.
- B. Buoy locations may be changed to indicate the channel for the existing river stage.
- C. Buoys have permanent moorings on the river bottom and will not shift position.
- D. The position of river buoys can be determined by consulting the latest Light List - Vol. V.

k - B

8. At 1430 on 13 August, you pass Carolina Landing Light (508.8 AHP). What has been the average current since 0230, 13 August if you have been making turns for 8.0 mph?

- A. 0.5 mph
- B. 1.5 mph
- C. 5.7 mph
- D. 8.5 mph

k - A

9. You are approaching the Old River Control Structure (mile 314.5 AHP). The structure is in operation. Which of the following statements is TRUE?

- A. The maximum speeds permitted when passing the channel are 10 mph downbound and 7.5 mph upbound.
- B. Tows must be no more than 110 feet wide when passing the inflow channel.
- C. Tow length must not exceed 850 feet when passing the inflow channel.
- D. You should navigate as close to the left descending bank of the Mississippi River as safety will permit.

k - D

10. The latest available information on the channel conditions above Baton Rouge that includes recommended course and the latest buoy information is found in the _____.

- A. Waterways Journal
- B. Channel Report
- C. Sailing Directions
- D. Corps of Engineers maps

k - B

BOOK # 05 QUESTION # 03601

To make good your desired course you are steering 142° psc. A southwesterly wind is causing 3° leeway, and there is 1° E gyro error. The variation 8° W. What course should you steer by standard magnetic compass to make good the desired course?

DEVIATION TABLE	
MAGNETIC HEADING	DEV.
120°	4° E
135°	2° E
150°	0°

- A. 133° psc
- B. 146° psc
- C. 148° psc
- D. 151° psc

k - D

BOOK # 05 QUESTION # 03602

You are heading 328° psc to make good a course of 332° T, correcting for 3° of leeway due to southwesterly winds and 1° E gyro error. If the variation is 17° E, what should the heading be to make good 332° T if you were steering by standard magnetic compass?

DEVIATION TABLE	
MAGNETIC HEADING	DEV.
345°	1° E
330°	1° W
315°	3° W
300°	5° W

- A. 315° psc
- B. 318° psc
- C. 343° psc
- D. 345° psc

k - A

BOOK # 05 QUESTION # 03603

You are steering 318° psc. A northeasterly wind causes 3° of leeway. The variation is 14° E and the deviation table is extracted below. What will be the true course made good?

DEVIATION TABLE	
MAGNETIC HEADING	DEV.
300°	2° E
315°	0°
330°	2° W

- A. 301° T
- B. 303° T
- C. 327° T
- D. 329° T

k - D

BOOK # 05 QUESTION # 03604

You wish to make good a course of 258° T, and you must allow a leeway of 4° due to northerly winds. The variation is 21° W. The deviation table is extracted below. What heading should you steer psc to make good 258° T?

DEVIATION TABLE	
MAGNETIC HEADING	DEV.
285°	5° E
270°	3° E
255°	1° E

240°

1° W

- A. 242° psc
- B. 271° psc
- C. 278° psc
- D. 288° psc

k - C

BOOK # 05 QUESTION # 04000

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
358.5° - 350°	122.5° - 110°	239.5° - 230°
030.5° - 020°	152.0° - 140°	269.0° - 260°
061.5° - 050°	181.0° - 170°	298.0° - 290°
092.0° - 080°	210.0° - 200°	327.5° - 320°

What is the deviation on a magnetic compass heading of 057°?

- A. 1.0° E
- B. 1.5° E
- C. 1.5° W
- D. 0.5° W

k - C

BOOK # 05 QUESTION # 04001

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
358.5° - 350°	122.5° - 110°	239.5° - 230°
030.5° - 020°	152.0° - 140°	269.0° - 260°
061.5° - 050°	181.0° - 170°	298.0° - 290°
092.0° - 080°	210.0° - 200°	327.5° - 320°

What is the deviation on a magnetic compass heading of 143°?

- A. 2.0° W
- B. 1.5° W

- C. 0.5° W
- D. 0.0°

k - A

BOOK # 05 QUESTION # 04002

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^{\circ} - 350^{\circ}$	$122.5^{\circ} - 110^{\circ}$	$239.5^{\circ} - 230^{\circ}$
$030.5^{\circ} - 020^{\circ}$	$152.0^{\circ} - 140^{\circ}$	$269.0^{\circ} - 260^{\circ}$
$061.5^{\circ} - 050^{\circ}$	$181.0^{\circ} - 170^{\circ}$	$298.0^{\circ} - 290^{\circ}$
$092.0^{\circ} - 080^{\circ}$	$210.0^{\circ} - 200^{\circ}$	$327.5^{\circ} - 320^{\circ}$

What is the deviation on a true heading of 258° ?

- A. 0.5° W
- B. 0.0°
- C. 0.5° E
- D. 1.0° E

k - D

BOOK # 05 QUESTION # 04003

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^{\circ} - 354^{\circ}$	$122.5^{\circ} - 114^{\circ}$	$239.5^{\circ} - 234^{\circ}$
$030.5^{\circ} - 024^{\circ}$	$152.0^{\circ} - 144^{\circ}$	$269.0^{\circ} - 264^{\circ}$
$061.5^{\circ} - 054^{\circ}$	$181.0^{\circ} - 174^{\circ}$	$298.0^{\circ} - 294^{\circ}$
$092.0^{\circ} - 084^{\circ}$	$210.0^{\circ} - 204^{\circ}$	$327.5^{\circ} - 324^{\circ}$

What is the deviation on a gyro heading of 058° ?

- A. 1.5° W
- B. 1.0° W
- C. 1.0° E
- D. 0.5° W

k - A

BOOK # 05 QUESTION # 04004

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^\circ - 354^\circ$	$122.5^\circ - 114^\circ$	$239.5^\circ - 234^\circ$
$030.5^\circ - 024^\circ$	$152.0^\circ - 144^\circ$	$269.0^\circ - 264^\circ$
$061.5^\circ - 054^\circ$	$181.0^\circ - 174^\circ$	$298.0^\circ - 294^\circ$
$092.0^\circ - 084^\circ$	$210.0^\circ - 204^\circ$	$327.5^\circ - 324^\circ$

What is the deviation on a magnetic compass heading of 166° ?

- A. 2.0° W
- B. 1.5° W
- C. 1.0° W
- D. 0.5° W

k - B

BOOK # 05 QUESTION # 04005

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^\circ - 354^\circ$	$122.5^\circ - 114^\circ$	$239.5^\circ - 234^\circ$
$030.5^\circ - 024^\circ$	$152.0^\circ - 144^\circ$	$269.0^\circ - 264^\circ$
$061.5^\circ - 054^\circ$	$181.0^\circ - 174^\circ$	$298.0^\circ - 294^\circ$
$092.0^\circ - 084^\circ$	$210.0^\circ - 204^\circ$	$327.5^\circ - 324^\circ$

What is the deviation on a magnetic compass heading of 022° ?

- A. 1.5° E
- B. 0.5° E
- C. 0.0°
- D. 0.5° W

k - C

BOOK # 05 QUESTION # 04006

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The

variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^\circ - 354^\circ$	$122.5^\circ - 114^\circ$	$239.5^\circ - 234^\circ$
$030.5^\circ - 024^\circ$	$152.0^\circ - 144^\circ$	$269.0^\circ - 264^\circ$
$061.5^\circ - 054^\circ$	$181.0^\circ - 174^\circ$	$298.0^\circ - 294^\circ$
$092.0^\circ - 084^\circ$	$210.0^\circ - 204^\circ$	$327.5^\circ - 324^\circ$

What is the deviation on a true heading of 236° ?

- A. 1.0° W
- B. 0.5° E
- C. 1.5° E
- D. 0.0°

k - B

BOOK # 05 QUESTION # 04007

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^\circ - 350^\circ$	$122.5^\circ - 110^\circ$	$239.5^\circ - 230^\circ$
$030.5^\circ - 020^\circ$	$152.0^\circ - 140^\circ$	$269.0^\circ - 260^\circ$
$061.5^\circ - 050^\circ$	$181.0^\circ - 170^\circ$	$298.0^\circ - 290^\circ$
$092.0^\circ - 080^\circ$	$210.0^\circ - 200^\circ$	$327.5^\circ - 320^\circ$

What is the deviation on a gyro heading of 166° ?

- A. 1.0° W
- B. 1.0° E
- C. 0.5° W
- D. 0.5° E

k - A

BOOK # 05 QUESTION # 04008

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
---------	---------	---------

PSC - PGC	PSC - PGC	PSC - PGC
358.5° - 350°	122.5° - 110°	239.5° - 230°
030.5° - 020°	152.0° - 140°	269.0° - 260°
061.5° - 050°	181.0° - 170°	298.0° - 290°
092.0° - 080°	210.0° - 200°	327.5° - 320°

What is the deviation on a gyro heading of 037°?

- A. 1.0° W
- B. 1.5° W
- C. 1.5° E
- D. 2.0° E

k - A

BOOK # 05 QUESTION # 04009

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
358.5° - 350°	122.5° - 110°	239.5° - 230°
030.5° - 020°	152.0° - 140°	269.0° - 260°
061.5° - 050°	181.0° - 170°	298.0° - 290°
092.0° - 080°	210.0° - 200°	327.5° - 320°

What is the deviation on a true heading of 187°?

- A. 1.5° W
- B. 0.5° W
- C. 0.0°
- D. 1.0° E

k - B

BOOK # 05 QUESTION # 04010

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
358.5° - 350°	122.5° - 110°	239.5° - 230°
030.5° - 020°	152.0° - 140°	269.0° - 260°
061.5° - 050°	181.0° - 170°	298.0° - 290°

092.0° - 080°

210.0° - 200°

327.5° - 320°

What is the deviation on a magnetic compass heading of 104°?

- A. 1.8° E
- B. 2.6° E
- C. 2.2° W
- D. 2.7° W

k - C

BOOK # 05 QUESTION # 04011

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
358.5° - 350°	122.5° - 110°	239.5° - 230°
030.5° - 020°	152.0° - 140°	269.0° - 260°
061.5° - 050°	181.0° - 170°	298.0° - 290°
092.0° - 080°	210.0° - 200°	327.5° - 320°

What is the deviation on a magnetic compass heading of 234°?

- A. 2.5° W
- B. 2.5° E
- C. 1.0° W
- D. 0.5° E

k - D

BOOK \$ 05 QUESTION # 04012

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
358.5° - 354°	122.5° - 114°	239.5° - 234°
030.5° - 024°	152.0° - 144°	269.0° - 264°
061.5° - 054°	181.0° - 174°	298.0° - 294°
092.0° - 084°	210.0° - 204°	327.5° - 324°

What is the deviation on a magnetic compass heading of 210°?

- A. 0.0°

- B. 0.5° W
- C. 0.5° E
- D. 1.0° E

k - A

BOOK # 05 QUESTION # 04013

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^{\circ} - 354^{\circ}$	$122.5^{\circ} - 114^{\circ}$	$239.5^{\circ} - 234^{\circ}$
$030.5^{\circ} - 024^{\circ}$	$152.0^{\circ} - 144^{\circ}$	$269.0^{\circ} - 264^{\circ}$
$061.5^{\circ} - 054^{\circ}$	$181.0^{\circ} - 174^{\circ}$	$298.0^{\circ} - 294^{\circ}$
$092.0^{\circ} - 084^{\circ}$	$210.0^{\circ} - 204^{\circ}$	$327.5^{\circ} - 324^{\circ}$

What is the deviation on a gyro heading of 039° ?

- A. 0.8° E
- B. 0°
- C. 0.5° W
- D. 1.0° W

k - D

BOOK # 05 QUESTION # 04014

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^{\circ} - 354^{\circ}$	$122.5^{\circ} - 114^{\circ}$	$239.5^{\circ} - 234^{\circ}$
$030.5^{\circ} - 024^{\circ}$	$152.0^{\circ} - 144^{\circ}$	$269.0^{\circ} - 264^{\circ}$
$061.5^{\circ} - 054^{\circ}$	$181.0^{\circ} - 174^{\circ}$	$298.0^{\circ} - 294^{\circ}$
$092.0^{\circ} - 084^{\circ}$	$210.0^{\circ} - 204^{\circ}$	$327.5^{\circ} - 324^{\circ}$

What is the deviation on a true heading of 157° ?

- A. 2.0° W
- B. 1.5° W
- C. 1.0° W
- D. 0.0°

k - B

BOOK # 05 QUESTION # 04015

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^\circ - 354^\circ$	$122.5^\circ - 114^\circ$	$239.5^\circ - 234^\circ$
$030.5^\circ - 024^\circ$	$152.0^\circ - 144^\circ$	$269.0^\circ - 264^\circ$
$061.5^\circ - 054^\circ$	$181.0^\circ - 174^\circ$	$298.0^\circ - 294^\circ$
$092.0^\circ - 084^\circ$	$210.0^\circ - 204^\circ$	$327.5^\circ - 324^\circ$

What is the deviation on a true heading of 319° ?

- A. 0.5° E
- B. 1.0° W
- C. 2.5° E
- D. 2.5° W

k - C

BOOK # 05 QUESTION # 04016

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° W. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^\circ - 354^\circ$	$122.5^\circ - 114^\circ$	$239.5^\circ - 234^\circ$
$030.5^\circ - 024^\circ$	$152.0^\circ - 144^\circ$	$269.0^\circ - 264^\circ$
$061.5^\circ - 054^\circ$	$181.0^\circ - 174^\circ$	$298.0^\circ - 294^\circ$
$092.0^\circ - 084^\circ$	$210.0^\circ - 204^\circ$	$327.5^\circ - 324^\circ$

What is the deviation on a magnetic compass heading of 004° ?

- A. 1.5° W
- B. 0.5° W
- C. 0.0°
- D. 1.0° E

k - D

BOOK # 05 QUESTION # 04017

You are swinging ship to determine the residual deviation by comparing the standard magnetic compass against the gyrocompass. The gyro error is 2° E. The variation is 8° W. After completing the swinging you have the following readings:

HEADING	HEADING	HEADING
PSC - PGC	PSC - PGC	PSC - PGC
$358.5^{\circ} - 350^{\circ}$	$122.5^{\circ} - 110^{\circ}$	$239.5^{\circ} - 230^{\circ}$
$030.5^{\circ} - 020^{\circ}$	$152.0^{\circ} - 140^{\circ}$	$269.0^{\circ} - 260^{\circ}$
$061.5^{\circ} - 050^{\circ}$	$181.0^{\circ} - 170^{\circ}$	$298.0^{\circ} - 290^{\circ}$
$092.0^{\circ} - 080^{\circ}$	$210.0^{\circ} - 200^{\circ}$	$327.5^{\circ} - 320^{\circ}$

What is the deviation on a gyro heading of 196° ?

- A. 2.0° E
- B. 2.0° W
- C. 1.0° W
- D. 0.0°

k - D
E